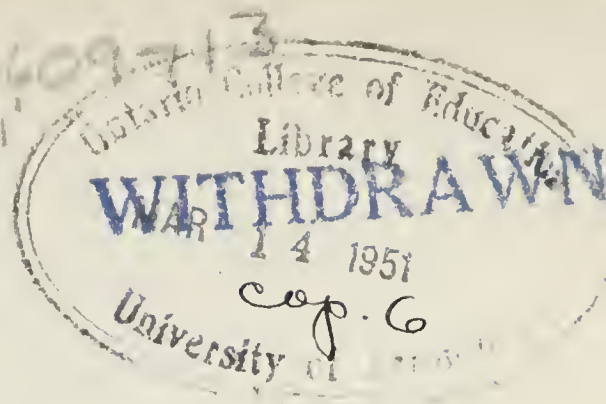


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INTERMEDIATE DIVISION

OUTLINES OF COURSES
FOR EXPERIMENTAL USE

1950

CURRICULUM I:1

20,000



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1950

**INTERMEDIATE
DIVISION
GRADES VII, VIII, IX, X**

OUTLINES OF COURSES
FOR EXPERIMENTAL USE

CURRICULUM I:1

20,000

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FOREWORD

The *Memorandum re Establishment of Local Committees on Curriculum* (*Curriculum* : 3), dated May 15, 1950, gave directions and suggestions to provide for the revision of courses within a local school system by a Coordinating Committee and Teachers' Committees. To assist these Committees in their work, the accompanying circular contains a statement of objectives for the revision of the curriculum in the Intermediate Division, and suggestive outlines of courses of study in certain subjects for Grade VII.

In the preparation of these outlines, recommendations received from the Ontario Teachers' Federation and the Ontario Educational Association were given consideration. The suggested courses are based on modern educational thought and practice in Canada and elsewhere. They were prepared by committees of the Ontario School Inspectors' Association comprising inspectors of Elementary and Secondary Schools and the representatives from the staffs of the Ontario College of Education.

The outlines are not prescriptive, and detailed prescriptive courses will not be issued by the Department of Education. They are designed solely to help Teachers' Committees in drawing up courses of study suited to their particular communities by indicating a general field for study in a given subject, and by providing an example and a basis for discussion.

For the year commencing September, 1950, a school board has permission to use the following types of courses under the circumstances stated:

1. Where a Teachers' Committee has completed its work of drawing up a course of study, such course may be used on the recommendation of the Coordinating Committee;
2. After the necessary modifications have been made by Teachers' Committees to suit local conditions, the suggested outlines, or any one or more of them, may be used on an experimental basis on the recommendation of the Coordinating Committee;

3. Where a Teachers' Committee has not proceeded far enough in its work to recommend its own course or changes in the suggested outlines, the suggested outlines submitted herewith may be used with the approval of the elementary school inspector.

Where a school board does not make use of the foregoing permission, the present authorized course shall be followed.

A handwritten signature in cursive script, reading "Dana Porter". The signature is written in dark ink and is positioned above the printed name.

Minister of Education

Toronto,
June 15, 1950.

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OBJECTIVES FOR THE REVISION OF THE CURRICULUM IN THE INTERMEDIATE DIVISION

In the revision of the curriculum for the Intermediate Division, the chief aim is to provide a programme for Grades VII, VIII, IX and X which will be

- (a) unified and continuous,
- (b) adaptable to the individual differences of pupils ranging in age from 12 to 16 years, and
- (c) suited to the needs of the local community.

Unity and Continuity

A recent survey in Ontario indicated that out of all pupils entering the elementary schools approximately 56% continue their education to the end of Grade X, but that only 21% complete Grade XII. Many pupils in Grade IX start four-year courses which they do not finish, and in many cases they drop out of school with a sense of frustration or failure. It is apparent, therefore, that Grade X, instead of Grade VIII, should be recognized as the end of a definite stage in the school education of the majority of pupils.

By grouping Grades VII to X in a single Division of the Curriculum, a unified and continuous programme can be designed for these grades to meet the needs of pupils in the age range of 12 to 16 years and to provide a well-rounded course for pupils who may leave school at the end of Grade X. One of the artificial barriers to continuity has been removed by the abolition of the High School Entrance Examination. The extent to which the programme of the Intermediate Division can be unified and coordinated will depend upon the degree of cooperation between teachers of Grade VII and VIII in the Public and the Separate Schools and teachers of Grades IX and X in the Secondary Schools. In a local school system, it is essential that teachers of one grade be familiar with what is being done in each of the

other grades, and that teachers of one subject know what teachers of other subjects are trying to accomplish. Sharing responsibility for constructing courses of study is an effective means of achieving this objective.

Individual Differences

One of the aims of the school programme is to provide for each individual those activities which are adapted to his particular capacities and in which he may participate with reasonable success and satisfaction.

Pupils in the age group of 12 to 16 years possess a wide range of abilities and interests which must be given opportunities for trial and growth. It is during this adolescent period also that many pupils develop strong vocational interests, and it is important that these pupils find in the school curriculum opportunities to pursue courses related to these interests.

To meet the demands arising from these individual differences, the curriculum of the Intermediate Division should be kept flexible and diversified. In Grades VII and VIII, individual differences may be met through a variety of activities within the common course offered to all pupils. While this principle will apply also to the obligatory subjects of Grades IX and X, further opportunities for meeting individual differences will be afforded in these grades through optional subjects and special courses.

Community Needs

School programmes should be designed to meet the needs of the local community and so to appeal to the immediate interests of the pupils. School and community life should be closely linked, and local situations should be used to illustrate school instruction. The pupil's own community is the best place to get at first hand an understanding of his physical and social environment. Through this understanding of the physical, economic, and social relationships in his own community lies the surest way to his understanding of the wider relationships between the present and the past, and between our country and the rest of the world.

To achieve these objectives, the responsibility for constructing detailed programmes has been placed on local authorities. Local curriculum committees consisting of teachers of Grades VII, VIII, IX and X are well qualified to assume this responsibility.

Their ideas arising from daily experience in school will contribute to the practical success of the programme. They will also be able continually to evaluate and revise their courses of study on the basis of actual use and experiment.

Freedom within wide limits to construct courses of study has been used with success in many parts of Ontario. Such programmes, designed to meet local needs, have been effective in holding the interest of pupils, decreasing the number of pupils dropping out of school, and improving the quality of community life. Curriculum planning by local committees of teachers will extend these beneficial results and will enable schools to provide more realistic and interesting courses.

ORGANIZATION OF THE SCHOOL PROGRAMME

The programme of the Intermediate Division should be designed as a unit for pupils of the age range of 12 to 16 years. To meet the needs of these adolescent pupils along the lines suggested in the objectives of the curriculum for the Intermediate Division, the organization of the school programme in this division should include

- (a) obligatory subjects,
- (b) optional subjects and courses, and
- (c) special courses.

Obligatory Subjects

It is recommended that a common, general course be offered to all pupils in Grades VII and VIII, with special adaptations to meet individual differences within a class group. In Grades IX and X, part of the programme should consist of obligatory subjects containing the common learnings and experiences which make up a well-rounded general education for pupils of this age-group. The time allotted to these obligatory subjects would be approximately 60% of the total in Grade IX, and 40% in Grade X. The remaining time should be allotted to the optional subjects, but the courses in such subjects should be kept general in character in order that they, too, may contribute to the general education of the pupils selecting them.

Optional Subjects and Courses in Grades IX and X

The number of optional subjects offered will depend upon the facilities of the school, the qualifications of the staff, and the limitations imposed by the maintenance of an economical pupil-teacher ratio. In Vocational and Composite Schools, optional courses as well as optional subjects should be made available in these grades. In order that pupils may have as wide a choice as

possible, even in smaller schools, it is suggested that certain optional subjects be offered on a two-year rotation plan. A course of study in Science, Art, Music, Agriculture, Home Economics, Shop Work, or Commercial Work need not be dependent upon the course of the preceding year in the same subject. The offering of alternate, parallel courses in each of these subjects on a rotation plan will not only simplify timetable organization, but also will enable a pupil to choose the subject in either or both grades. Under this arrangement, some pupils may select in Grade IX the subjects in which they have decided to specialize in the Senior Division, other pupils may explore several subject fields before making a final choice, and pupils who are required to repeat a subject need not repeat the same course content.

Special Courses for pupils who intend to leave school at age 16

Where a sufficient number of pupils indicate their intention of leaving school at the end of Grade X, a school may organize special courses adapted to the needs of such pupils. In addition to appropriate work in English, Social Studies, Elementary Mathematics and Physical Education, these courses should comprise considerable training in those skills which, together with related information, are basic to homemaking, agriculture, business, or apprenticeship in the industrial trades. Such courses may also contain options in music (vocal or instrumental), in art, and in a variety of crafts.

Since these special courses must be organized by local curriculum committees to meet specific needs, they will necessarily vary in subject content. In every case, however, it is important that emphasis be placed on those activities and experiences which will promote desirable attitudes and efficient work habits. Pupils completing such courses should experience a sense of achievement which will enable them to enter employment with confidence and to participate in leisure-time activities with enjoyment.

Organization of the Time-table

In arranging time-tables, principals of secondary schools and of graded elementary schools will have to make special modifications to suit local conditions and to meet limitations imposed by school facilities, teaching staff, transportation of pupils or

optional subjects and courses. In most cases, a school week of 40 periods, of 40 minutes each, will provide for the best distribution of teaching periods.

In order to reduce the difficulties of transition from Grade VIII to Grade IX and to retain a closer relationship between teacher and pupil in all grades, it is suggested that a number of subjects be assigned to a *home room* teacher in each grade of the Intermediate Division. For example, the subjects of English, Social Studies and Mathematics might be assigned to the home room teacher in Grades VII and VIII, while the other subjects might be divided among teachers who are specially trained in the respective subjects. This grouping would divide the time about equally between the home room subjects and the specialized subjects. In Grades IX and X, various groupings of subjects might be used to provide for an allotment of 25% to 35% of the total time to the home room teacher.

Courses and Subjects of Study

Grades VII and VIII

English	Science
Social Studies	Art
Physical Education	Music
Mathematics	Home Economics or Industrial Arts

Grade IX

General Course

Obligatory Subjects

English	Physical Education
Social Studies	
Mathematics	Guidance (Occupations)

Options

Any three or four of

Science or Agricultural Science, French, Art or Music or Art and Music, Shop Work or Home Economics, Agriculture, Typewriting or Business Practice or Typewriting and Business Practice.

Note 1: A pupil who intends to select in Grade XI a course qualifying him for entrance to university should select French as an option in Grade IX.

Note 2: When the approval of the Minister has been obtained, special courses (see p.11) may be arranged for pupils who do not intend to qualify for an Intermediate Certificate.

Vocational Courses

In Vocational Schools, the time allotted to the teaching of the practical subjects in any one of the Industrial, Agricultural, Home Economics, Commercial, or Art courses shall not be less than twenty-five per cent (25%) of the total time. In a timetable of a pupil exploring two vocational courses, the time allotted to the teaching of the practical subjects of those courses shall not be less than thirty-five per cent (35%) of the total time. Special vocational courses may be arranged with the approval of the Minister.

In the Industrial Course, Drafting is an obligatory shop subject.

Grade X

General Course

Obligatory Subjects

English

Social Studies

Physical Education

Options

Any four or five of

Mathematics, General Science or Agricultural Science, Latin, French, Greek or Spanish or German, Art or Music or Art and Music, Shop Work or Home Economics, Agriculture, Typewriting or Business Practice or Typewriting and Business Practice.

Note 1: With the approval of the Principal, a pupil who is not a candidate for an Intermediate Certificate may select fewer than four options.

Note 2: In schools with Departments of Agriculture, a pupil taking both Agriculture and Shop Work may select five options.

Note 3: The principal should make certain that the pupil in the General Course selects the options which are essential to the course he intends to pursue in Grades XI, XII and XIII.

Note 4: Re Prerequisite Options. Standing in Mathematics or a language in Grade X is a prerequisite for the corresponding subject in Grade XI. Standing in Science or Agricultural Science, Art or Music or Art and Music, Shop Work or Home Economics, Agriculture, Typewriting or Business Practice or Typewriting and Business Practice in either Grade IX or Grade X is a prerequisite for the corresponding subject in Grade XI.

Industrial or Agricultural Course

Obligatory Subjects

English
Social Studies
Physical Education

Vocational and Related Subjects

Shop Work or Agriculture
and Shop Work
Mathematics
Science or Agricultural
Science

Options

Any one of

Art or Music or Art and Music, Drafting, French.

Home Economics Course

Vocational Subjects

English
Social Studies
Physical Education

Obligatory Subjects

Home Economics

Options

Any two of

Mathematics, Science or Agricultural Science, French, Art or Music or Art and Music, Commercial Work.

Commercial Course

Obligatory Subjects

English
Social Studies
Physical Education

Vocational and Related Subjects

Commercial Subjects
Business Arithmetic

Options

Any one or two of

French, Shop Work or Home Economics, Art or Music or
Art and Music, Science or Agricultural Science.

Art Course

Obligatory Subjects

English
Social Studies
Physical Education

Vocational Subjects

Art

Options

Any two of

Mathematics, Science, Shop Work or Home Economics,
French, Music, Commercial Work.

Guidance Programme in Grades VII, VIII, IX and X

The provision of opportunity for choice of optional subjects and courses makes guidance an essential element of the curriculum of the Intermediate Division. Guidance should not be considered as a separate subject for which one or two teachers of the staff are responsible, but rather as a purpose which integrates the whole school programme and a service for which every teacher assumes a share of responsibility. An effective guidance programme must be directly concerned with the development and adjustment of each individual pupil. It must provide him and his parents with educational and occupational information which is accurate and up-to-date. Through group-guidance and individual counselling, the pupil should be led to make intelligent choices with respect to his education and his future vocation.

The optional subjects of the Intermediate Division afford the best opportunity for exploratory experiences upon which the pupil may base his choice of a specialized course in the Senior Division. They should also provide him with valuable occupational information incidental to the subject fields concerned. This type of guidance, however, must be supplemented and coordinated by group work and counselling for which regular periods are allotted on the time-table. Group work in guidance should present a broad survey of occupations and afford opportunity for class discussion of topics related to vocations and school courses. Through individual counselling, each pupil may acquire specific information regarding the occupations and the educational courses in which he is particularly interested, and discuss his own abilities and qualifications.

Guidance, including a study of Occupations, is obligatory in Grade IX, and may be continued in Grade X. The Grade IX Course of Study in Occupations will be revised for the school year 1950-51. In Grade X, where provision may be made for Group Work in Guidance (Occupations), the course will be that outlined in the revised pamphlet. More detailed information on Guidance is given in Circular I: 3, "Guidance in the Intermediate Division, Grades VII to X".

Intermediate Certificates

An Intermediate Certificate will be granted, on the recommendation of the principal of a Collegiate Institute, a High, Continuation, or Vocational School, or on the recommendation of the principal of a Public or Separate School, with the approval of the inspector concerned, to a pupil who has completed successfully the courses of study for Grades VII, VIII and IX and one of the courses for Grade X.

OUTLINES OF COURSES FOR EXPERIMENTAL USE

Each of the following outlines has been drawn up in the form considered most useful to Teachers' Committees on Curriculum. No attempt has been made, therefore, to present the outlines in the same pattern or in the same amount of detail. Each outline begins, however, with a statement of aims and teaching principles which hold for that subject in all grades of the Intermediate Division. The outlines vary also in the number of grades which they are designed to cover. The outlines in English, Social Studies, Mathematics, and General Science were prepared for Grade VII only; in Home Economics and Industrial Arts for Grades VII and VIII; and in Art and Music for Grades VII, VIII, IX, and X.

The course in Physical Education, which has been prepared for Grades VII and VIII in considerable detail, will be issued separately at a later date.

ENGLISH

English is vital to the general development of the pupils and is, therefore, the direct concern of every teacher. Adequate skill in the use of English is essential to progress in all subjects of the curriculum, in meeting the practical demands of everyday life, and in fulfilling the duties of citizenship in a democracy. To use English well is a valuable accomplishment; to use it inadequately is to be judged as fundamentally uneducated. To make its contribution to the development of the pupils, the teaching of English should be stimulating, systematic, and thorough.

Through the study of English, pupils are helped to comprehend meaning readily and fully, to think clearly, and to communicate ideas effectively. Practice in listening and reading attentively will help pupils to follow a line of thought, to gather ideas, and to widen their experience. Practice in writing and speaking clearly increases the pupils' powers of thinking, for the step towards clarity of expression is a step towards clarity of thought. Thus the effort of the pupils to grasp the precise significance of words and to express themselves sincerely, accurately, and agreeably is a potent influence upon their personal growth. Practice in communication with others challenges pupils to have something worthwhile to say, and to judge their success in saying it convincingly by the reaction of their audience. This challenge develops the habit of self-criticism and stimulates further effort to convey meaning effectively.

English literature is a heritage of excellence in many forms. Studied in a manner appropriate to the level of the pupils' attainment, it encourages them to be more exact in their thinking, more mature in their emotional response, and more discerning in their attitude to life. The study of many different kinds of writing aids pupils to acquire a lasting and discriminating interest in reading. This is of the utmost importance. It adds to the pupils' stock of general knowledge, thus enabling them to form personal opinions upon a variety of

subjects. It helps them to discover and pursue special interests. It widens their opportunities for enjoyment and provides a means of lifelong self-education.

Principles and Practices

Individual Differences

Since the courses outlined for the Intermediate Division are suited to the normal capacity and experience of pupils at the average age level in each grade, the needs of more talented or less gifted pupils require special attention. Teachers, therefore, must adjust their instruction to provide for individual needs and differences so that each pupil will be challenged to proceed at the rate of which he is capable. To do this, teachers must take into account different personalities, with widely divergent backgrounds and home conditions and different attitudes towards school training. Thus, in smaller schools several levels of instruction must be carried on in the same class. In larger schools there may be grouping and re-grouping of pupils according to their progress.

Individual Assessment

At the beginning of the school year and at frequent intervals thereafter, the teacher should study and assess the attainments and capacities of individual pupils. The variations in these will increase in successive grades. Pupils who seem to possess almost identical powers in early grades frequently reveal a wide disparity in subsequent years.

Selection, Emphasis, Continuity

In dealing with the different topics of the course of study, it is necessary to keep in mind the importance of selection, emphasis, and continuity. The teacher should not neglect any section of the course, but select and emphasize those parts of each which are most closely related to the pupils' needs and interests.

Local Adaptation

The course of study offers a general plan for adaptation to local conditions. Thus a community with a large proportion of new Canadians will present language problems and provide resources different from those in other communities.

Forgetting

In attempting to reach a reasonable level of achievement in English for each grade the teacher should make allowance for the fact that pupils are prone to forget principles and practices already taught, but not thoroughly assimilated. Repetition and review can remedy the lapses of youthful memory.

Teacher Direction

The teacher must be adept in recognizing the most suitable time and opportunity for offering direction to the pupils, neither overestimating nor underestimating their powers of judgment. Assistance is most beneficial when the pupils' efforts have been fully utilized.

Pupils' Interests

Pupils in the Intermediate Division are at a stage in their development when they have many interests. These they hold loyally, often vehemently, even if only for a short time. The teacher can capitalize upon these interests and use them effectively in English activities. But what of the pupils who have few interests, who seem never to have anything to say or anything to write about? These pupils need to be helped and encouraged. Easy reading material, visits to places of interest, class discussions, topics from other subjects, school activities, personal and vicarious experiences will help them to make their contribution. A topic such as "My First Ride in a Plane" calls for simple, sincere expression of thought and feeling about a natural personal experience, whereas "The Aviation Industry in Canada" is a topic so broad as to evoke generalities expressed in language unnatural for an adolescent.

Oral Discussion

A good class discussion is more than casual talk. It deals with a subject within the range of the pupils' experience. It has a definite purpose which they accept as worthwhile for the group. It follows the accepted rules of courtesy and orderly procedure. It takes place in a setting which encourages all pupils to contribute to the common purpose with the confidence that relevant facts and sincere opinions will be respected although they may be refuted. A good discussion aims at bringing out evidence which provides a basis for making decisions or

taking action, but it will be successful if the pupils deepen their understanding of the subject by exchanging their ideas. The teacher's part is that of a senior partner who leads the pupils to evaluate their own efforts.

Discussions of this kind may be definite class exercises or they may arise in the progress of a lesson. They follow naturally from formal speeches or informal reports on books, games, movies and club meetings. Discussion may be instigated by the teacher through questions or provocative statements related to the immediate interests of the pupils.

Levels of Language

Pupils should be led to recognize that language varies in different circumstances and for different purposes. Language has social significance; it is governed by the rules of good taste as well as good usage. Thus, the language of the ball game is one form of appropriate English, whereas the language of the class discussion is another.

Oral Expression

In oral expression the teacher should stress the importance of clear articulation and enunciation, together with the basic principles of timing, phrasing, and natural inflection of the voice. Serious speech defects require the services of a specialist; the teacher's efforts to overcome them may do more harm than good. Injunctions to speak more loudly or clearly are of little value. The teacher's own good example, coupled with specific directions about moving the lips or sounding the endings of words, and an acceptance by the class of the importance of good speech, will accomplish much more. The frequent use of a voice recorder is a valuable aid in improving speech.

Correction

Regular direction and constructive criticism of written work is necessary. Personal guidance which leads the pupil to improve his own work is of inestimable value. Much effective work can be done by the teacher who moves about among the pupils offering helpful suggestions. Sometimes a good paragraph by one of the members of the class may be written on the blackboard and its merits and defects discussed freely with advantage to all. The teacher's part in such discussions should be only directive. An excellent practice under proper con-

ditions is to encourage the pupils to work in groups for mutual help and criticism. In all written work credit should be given for the pupils' honest efforts, and defects in the mechanics of expression should not be allowed to obscure merit in the thought and feeling.

Genuine creative ability may be found in only a few pupils of these grades, but creative writing, in the sense that it is inventive, imaginative and fresh, is fairly common and deserves encouragement and kindly guidance.

Models

Literary models, carefully chosen to suit the age and understanding of the pupils, are useful in stimulating personal creative effort, not mechanical imitation. Frequent use of good models from the pupils' own work can be of special value in encouraging better writing and motivating self-criticism.

Objectives in the Study of Literature

The main objectives in the study of literature are the cultivation of a taste for good reading, the enlargement of experience, the stimulation of the imagination, the enrichment of knowledge, and the development of character. The pupil develops a richer and fuller personality by association with great minds and through wholesome vicarious experiences. An imagination stirred by Kipling's art in the pages of "Captains Courageous" will be less likely to respond to the cheap sensations of the crime thriller. But teachers should avoid fulsome praise of classic writers. Let the author speak eloquently for himself.

Extensive Study

In the Intermediate Division the treatment of literature should be largely extensive. The intelligent and sympathetic reading of a selection should be followed by group discussion stimulated and directed by challenging questions. The primary aim of this group study is the enjoyment and understanding of good literature, the sharing of emotional response, and the growth of discrimination and good taste. Pupils should be led to feel that their opinions are interesting and worthwhile, and that mutual constructive criticism of one another's opinions is a desirable and natural thing.

Encouraging Wider Reading

An atmosphere of interest in good books and wholesome reading should be established in the English classroom and in the school library by the provision of attractive library facilities, including adequate shelving and a wide variety of reading with emphasis on interesting books of adventure and noble deeds. Generous use of tack-boards for the resourceful display of illustrative material, which is topically appropriate and frequently changed, will stimulate interest in events, places, and people as well as in the topics currently being studied in other subjects. Instruction in library practice should be given to the extent necessary for proper use of reference material in all subjects. Pupils will welcome and benefit from sharing in the management of the classroom or school library. Teachers should make good use of the facilities of the travelling library and should co-operate with and encourage the use of the community library. But neither of these agencies can take the place of a well-stocked school library containing the sort of reading which young people like and from which they can derive most benefit. The library is the pulsing heart of the school which gives life and interest to the work in every subject.

Dramatic Work

Dramatic production and acting in the classroom, the school auditorium, or the puppet theatre will give the pupils valuable training in many activities. Here they will find scope for their varying talents and interests. Cooperation, initiative, self-expression, growth of personality, and fuller appreciation of dramatic literature will all be fostered by the presentation of suitable plays capably and wisely directed. With encouragement pupils can write brief plays or scenes based upon their reading or experiences. They can share the direction, the making of properties and costumes, and the many other phases of dramatic production.

Listening

Training pupils in the neglected art of listening is important. This can be done by setting pupils the objective of understanding a selection and judging its merits from hearing it read aloud by the teacher or a fellow-pupil. Questions and discussion based on the selection will encourage them to listen attentively, critically, and with enjoyment.

Memorization

About one hundred lines chosen from both poetry and prose should be memorized in Grade VII. The selections to be memorized should be chosen by the pupil. Teachers should not be disturbed to discover that some pupils will choose selections that, according to adult standards, are not good poetry, nor should they in their desire to improve the immature taste attempt to force an appreciation of standards for which the children are not ready. Such attempts are rarely successful and frequently they result in lessening or killing entirely the love of poetry they were designed to foster. As the pupils mature, their preferences change. As experience widens, tastes improve. The inferior tends to be discarded and the better preferred, but this is only true when taste is not forced and when literature of different kinds and quality has been sampled so that the pupils themselves can exercise their powers of choice.

The dramatic presentation of plays and choral reading provide purposes which the pupil readily understands and accepts for memorization.

Presumably poetry is memorized to be quoted. In the testing of memory work, emphasis should be placed upon understanding and appreciation as evidenced in the oral presentation.

A considerable body of opinion supports the memorization of fine poetry selected by the teacher. It is the view that this is an effective way of "storing the mind" with worthwhile literature and that many adults in moments of quiet reflection derive pleasure and satisfaction from the recollection of memory work learned in their school days. Teachers who take this view, can, no doubt, communicate their enthusiasm to the pupils and arouse a desire to memorize a selection of which the teacher is particularly fond. The unmotivated assignment of selections for memorization can do nothing but harm.

Functional Grammar

Grammar is to be functional in the sense that it is based upon the pupils' needs and is therefore of practical value; its scope and emphasis are determined by the requirements of individual pupils as revealed in their speech and writing. Pupils should be led to discover the fundamental rules of grammar from carefully selected examples. The discovery of these rules should be closely followed by their application and by plenty of purposeful practice.

Spelling

Instruction in the simple rules of spelling, and functional practice in the correct spelling of words commonly used in the different subject of the curriculum, should be carried on methodically. Short lists of words well mastered are of greater value than long lists treated mechanically and spasmodically. Correct spelling can best be achieved by first understanding the word, and then seeing, saying, and writing it until it is mastered.

Handwriting

Responsibility for handwriting is shared by all teachers, but the teacher of English assumes the primary responsibility for the maintenance of good standards of neatness and legibility throughout successive grades. Needless to say, teachers should set a good example, especially in blackboard writing.

The Teacher of English

The teacher is the pupils' model of good posture and grooming, clear speech, sound judgment, and gracious manners. He should be aware of his constant influence upon the interests, tastes, and personalities of his pupils. The measure of his success in the teaching of English will be the interest of the pupils in good books, their powers of straight thinking, and their ability to speak and write clearly, naturally and sincerely, to read intelligently, and to appreciate the good things of life which are revealed to us through language.

Grade Seven

This outline has been prepared for Grade VII, but its statement of activities and general principles also provides a sound guide for local curriculum committees in drawing up courses for Grades VIII, IX and X. The material under the heading thought and structure represents what may be considered the general level of achievement for Grade VII. Progressively more advanced work of this kind should be outlined for the succeeding grades.

Comprehension

1. Reading Skills

- (a) Practice when necessary to increase ability in
 - getting the main thought
 - following the sequence of ideas or events
 - recalling details
 - making inferences
 - following directions
 - locating information—use of table of contents,
index, etc.
 - finding answers to questions by skimming
 - appraising content, examining a book to estimate its
usefulness in terms of the topic under study
 - testing an opinion
 - reading for these various purposes at appropriate rates

Frequent practices will reduce the need for remedial work in later stages of education.

Since permanent improvement results only when the pupil gets satisfaction from success, the teacher's first duty is to discover the individual attainments in each reading skill and then to arrange the necessary practices, beginning slightly below the achievement level. Serious deficiencies require careful diagnosis followed by well-considered prescription and frequent practice. In September, reliable measures of achievement may be made by comparing the results of a standardized test with the opinions of former teachers.

(b) Types of Reading

"In the best schools, reading has ceased to be a lesson and has become a pursuit." (Ballard)

Recreational

Informational

current events

conservation

special interests

widening horizons

Reflective

to discover others' opinions

to understand problems

to make critical judgments

Practical

- to follow directions
- to discover specific information
- to explore new ideas
- to aid planning

Report

- to locate material for classroom use in discussions, summaries, reports, etc.

Reference

- to secure and correlate different kinds of information

2. Library Skills

Purposeful practice in real situations in all subjects, including

- recalling how to open a new book, how to turn a page
- practice in alphabetical arrangement
- use of table of contents
- use of indexes in texts and references
- understanding arrangement of encyclopaedias used by the pupils
- use of dictionary
 - quick location
 - interpretation of pronunciation (syllables, accents, diacritical marks)
 - grammatical use
 - derivation
 - meaning
- making outlines or summaries
 - use of topical headings
 - key words
 - selecting quotations, stating sources
 - logical arrangement
 - elaboration from the outline for oral and written reports
- using illustrations, charts, maps, diagrams, etc.
- organization, arrangement and management by the pupils of a classroom library of
 - available references in all subjects
 - recreational reading
 - pupils' own books lent to the classroom library

3. Study Habits

- (a) Environment
 - undisturbed
 - quiet
 - with ready access to materials
 - healthful: light, heat, posture
- (b) Clearness of purpose
 - objective in mind
 - determination of means to this end
 - concentrated effort for short periods
- (c) Regular classroom demonstrations and practices in supervised study-periods of the techniques applicable to the following activities:
 - collecting and collating information from two or three sources, e.g., What stage furniture and properties should be used for a scene laid in a Norman castle of the 14th century?
 - writing a report, e.g., A Visit to an Industrial Plant
 - making a summary from which to give an oral report, e.g., The Life History of an Insect
 - memorizing effectively
 - how to memorize
 - facts of common knowledge, e.g., the provincial capitals of Canada and their relative location and size
 - salient facts for oral reports
 - quotations from prose or verse
 - reading for background, e.g., What can we find out about buffalo which will prepare us to enjoy "The Buffalo Hunt"?
 - making memoranda during or after a lecture or a reading

4. Word Study

Enlargement of vocabulary through

- (a) Savouring and using choice words or expressions as they appear
- (b) Spelling, using lists of similarly spelled words which introduce new words, e.g., interior, exterior, inferior, superior

- (c) Use of prefixes, suffixes and roots, explained as they appear
 - special teaching of
 - prefixes — re, dis, un, in (in, not) , ex, mis
 - suffixes — (t) ion, ful, ness, ance, al, age, ous, ly
 - roots — grapho, phonos, scribo (scriptum) ,
 - audio, video (visum) , mitto (missum)
- (d) Use of the dictionary
 - taught as a skill
 - regular practice as the occasions arise
 - (Variant spellings found in any standard dictionary are acceptable)
- (e) Study of words with a background
 - as the words occur
 - some separate study
 - words derived from people and places, e.g.,
 - derrick, damask, bayonet, miller, boycott, etc.
 - words derived from mythology, e.g., vulcanize, atlas,
 - jovial, January, etc.
 - naturalized foreigners, e.g., potato, sofa, mutton,
 - matinee, etc.
- (f) Synonyms
 - distinction of meaning, e.g. cunning, trickery, cleverness, etc.

5. Listening with a Purpose

Class exercises to

- (a) Get the meaning by
 - selecting the main ideas
 - relating these to experience
 - using context clues
- (b) Get the mood from
 - inflexion and tone
 - expression
 - gesture
- (c) Overcome handicaps by
 - eye attention
 - concentration

- (d) Emphasize obligations of an audience
 - good manners; in public and school assemblies
 - attention
 - appreciation of effort, sincerity, excellence
 - judgment
 - weighing arguments
 - reserving judgment
 - asking pertinent questions

Appreciation

1. Extensive reading, including that of the Authorized Readers
2. Intensive study of appropriate selections, mastering content for
 - enjoyment
 - information
 - judging reliability
 - sincerity
 - usefulness
 - relation to life
 - recognizing merit of form
 - clearness
 - conciseness
 - force
 - order
 - pattern
 - beauty of rhythm
 - sound
 - imagery
 - expression, diction
 - responding to mood and feeling
3. Encouraging appreciation by free reading
 - based on interests of pupils
 - exposure to many attractive books
 - introducing time-tested favourites of this age-group
 - new books of merit within the pupils' capacity
 - reading by the teacher, especially of passages which the pupils might not otherwise appreciate

4. Memorizing apt expressions
 - well-turned phrases and sentences
 - quotations for use
 - prose or verse suggested by the teacher
 - of the pupils' choice
 - passages from the Bible
5. Choral reading for interpretation and enjoyment of rhythmic passages
 - encouraging the self-conscious adolescent
6. Collecting examples of choice prose and poetry
 - contemporary as well as earlier literature
 - illustrating other subjects, e.g., occupations, Canada and other lands, heroic endeavour

Oral Communication

1. Something to say worth saying
2. Simple directions
3. Informal conversation
 - opening a conversation
 - the friendly manner
 - choosing a topic
 - keeping the ball rolling
 - courtesy in conversation
 - greeting newcomers to the group
 - making introductions
 - taking one's leave
4. Narration
 - personal experiences
 - anecdotes
 - stories that have been read
 - enquiry and explanation
 - to ensure full understanding
 - value of question and answer to pupil and class
5. Discussion
 - recognizing essential matter
 - speaking to the point
 - voluntary participation
 - problems of everyday living
 - seeing both sides of a question
 - special enquiry periods, panel method, etc.

6. Assemblies
 - regularly held, in classroom or auditorium
 - organized and conducted by the pupils
 - subject to teachers' advice and approval
 - followed by class evaluation
7. Dramatization
 - informal classroom dramatics
 - more formal presentations
 - choosing a play or making a play
 - assigning parts after tryouts
 - discussing costume, scenery, properties
 - assigning duties
 - rehearsing
 - making changes as necessary
 - final rehearsal
 - presentation to others
8. Extra-curricular activities
 - how to organize a club
 - how to conduct a meeting
 - how to take an active part
 - conventions of procedure
 - classroom meetings
 - Junior Red Cross
 - house-league activities
 - applications to pupils' community activities, church, clubs, athletic leagues
9. Reading for others
 - expressing the author's purpose
 - silent preparation
 - understanding the point
 - responding to the feeling
 - grouping and emphasizing the words
 - interpreting the music
 - making the best use of the voice
 - regular instruction and practice in
 - clear, natural enunciation
 - using the lips and the tongue
 - breathing and posture
 - keeping the eye ahead of the voice
 - correct pronunciation
 - using the voice recorder
 - hearing ourselves as others hear us

10. Speaking to an audience

- platform manners
- confidence
- careful preparation
- increasing demands through graded activities
- sincerity and enthusiasm
- naturalness of tone

Written Communication

1. Extensive practice in

- gradual enlargement of pupils' skills
- exercises based upon pupils'
 - interests
 - classroom needs
 - work in other subjects
 - outside experiences
- credit for honest effort
- spontaneity
- recognition of limitations

2. Organization

- determining purpose
- locating and recording material
- selecting pertinent material
- arranging material
 - topic, main idea
 - contributing ideas
 - challenging opening
 - logical sequence
 - effective closing

3. Story writing

- suggested by pictures
- based upon reading
- related to other subjects
- adding a sequel to a story
- making a similar story
 - different characters, or plot, or setting
- completing a story
 - given the beginning, or the middle, or the end.

4. Letter writing

- friendly informal letters
 - as occasions arise
 - about real situations
- news letters to family, friends, pen pals
- thank-you letters
- simple business letters
 - orders and enquiries
- basic letter conventions
 - parts
 - punctuation
 - capitals
 - spacing
 - addressing envelopes

5. Recording the minutes of a meeting

- time
- place
- motions
- business transacted

6. Making a class paper or contributing to the school magazine

- a joint enterprise
- teacher supervision as required
- general pupil contribution
 - story, news, poems, illustrations
- a suggested type
 - each pupil contributing a written page
 - revised by editorial staff
 - assembled and bound by art staff
 - circulated by circulation staff
 - lend to each pupil for an evening
 - no expense involved

Thought and Structure

1. The sentence

- recognition of the sentence as a unit of thought
- sentence structure
 - according to meaning
 - assertive, interrogative, imperative, exclamatory

according to construction
simple and compound
parts of a sentence
subject
predicate
modifying parts
completing parts — object, completion
recognition of these parts
application in written work

2. The paragraph

recognition of the paragraph as a unit of thought
paragraph structure
continued attention to essentials of a good paragraph
discussion of the nature of a paragraph
suitable oral preparation for written work
paragraphs built from class contributions
use of models as a basis for study
unity, logical sequences, effective beginning and ending
planning and writing compositions of more than one paragraph

3. Grammar

recognition and use of noun, pronoun, verb, adjective, adverb, preposition and conjunction (co-ordinate)
using phrases as adjectives and adverbs
agreement of the verb with its subject
recognition and use of simple tense forms — past, present and future
correct use of commonly misused past tenses in natural contexts, e.g., saw, seen; did, done; went, gone
distinction as the need arises between its, it's; there, their; to, too
irregular plurals of nouns in common use
formation and use of possessive forms in nouns
comparatives and superlatives in adjectives and adverbs
precision in the use of prepositions, e.g., in, into; on, upon, onto; etc.

4. Punctuation

establishing habitual and correct use of the period in sentences and abbreviations
the question mark

the exclamation mark
quotation marks in simple dialogue
apostrophe in possessives and contractions
comma to separate words in a series
 before a direct quotation
 to mark off word of address
 in dates and addresses

Spelling

attention to spelling in *all* written work
habitual use of dictionary
regular practice adjusted to individual needs
good spellers devoting additional time to word-study
weak spellers having ample practice adjusted to their
 needs and capacities
 using a variety of techniques, such as
 meticulous pronunciation
 similarity of form
 inducing a pride in good spelling
 keeping a personal list
 encouraging unhampered vocabulary growth
regular use of the blackboard to familiarize pupils with
 new words which might be misspelled
special attention in Grade VII, in context, to these
 commonly misspelled words: does, knows, off, there,
 too, write, asked, buy, coming, dropped, shining,
 stopped, sure, taking, their, quite, truly, woman,
 believe, busy, through, written, break, different,
 isn't, don't, quiet
continued attention to the uses of capitals

Handwriting

pride in good craftsmanship
care and attention in all work
legibility through
 careful formation of letters
 attention to margin
 spacing
 alignment
 uniformity of slant
importance of correct writing posture
gradual increase in speed without loss of legibility

individuality in style allowed by neatness and legibility
required
regular writing periods for pupils requiring assistance
drills to correct specific errors
pupils excused when satisfactory standards reached
and maintained

Reference Books for Teachers

General

Ballard: *Teaching and Testing English*. Clarke, Irwin.
Craig: *The Junior Speech Arts*. Macmillan.
Balcon et al: *English Language and Literature*. Ryerson.
Haddow: *On the Teaching of Poetry*. Ryerson.
Hartog: *Words in Action*. Clarke, Irwin.
Lewis: *Poetry for You*. Copp, Clark.
Morris: *Drama is Fun*. Ryerson.
Pinto (Ed.): *The Teaching of English in Schools*. Macmillan.

Reading

Gray (Ed): *Classroom Techniques in Improving Reading*. Gage.
Hicks: *The Reading Chorus*. Clarke, Irwin.
Smith: *Books for Boys and Girls*. Ryerson.
Teacher's Guide — Life and Literature, Books I and II. Nelson.

Composition

Alstetter: *We All Talk*. Nelson.
Kenny: *A New Course in English Composition*. Clarke, Irwin.
Pocock: *Pen and Ink*. Dent.
Shaw: *Writing and Rewriting*. Musson.
Woolley, Scott and Tressler: *Handbook of Writing and Speaking*.
Copp, Clark.

Usage

Freeman: *Plain English*. Dent.
Fowler: *Modern English Usage*. Oxford.
Roget: *Thesaurus*. Longmans.
Webster's Dictionary of Synonyms and Antonyms. Allen.
Webster's Collegiate English Dictionary. Allen.
The Concise Oxford Dictionary. Oxford.
Annandale: *Large Type Concise English Dictionary*. Ryerson.

SOCIAL STUDIES

Social Studies is the study of man in relationship to his environment and to other people. This central theme embraces in one subject history, geography, civics and guidance. If this theme is emphasized, the unity of the course can be preserved, although at times the specific material and objectives may belong to only one of its branches.

Social Studies should help the pupils to understand and to improve the democratic way of life. At present our material progress has outstripped our social development. We must define and meet our responsibilities to society more effectively if we are to live on good terms with our fellow men.

Aims

Knowledge and Understanding

1. The foundation the past has laid for the present.
2. The relationship between physical environment and the lives of people.
3. The interdependence of peoples.
4. The differences between peoples; customs which are different are not necessarily inferior.
5. The relationship between rights and responsibilities in a democracy.
6. The sacrifices made for our democratic way of life.
7. The necessity for conserving our natural resources.

Skills

1. Facility in the use of books, periodicals, charts and maps.
2. Collecting, organizing and using in activities data gathered from various sources.
3. Ability in critical thinking, making conclusions, expressing opinions and making practical application of the knowledge gained.
4. Taking an effective part in group discussions and activities.

Attitudes

1. A respect for peoples and individuals unprejudiced by qualities of race, colour, class, creed or national origin.
2. A respect for the decisions of the majority and the points of view of minorities.
3. The recognition that all work that needs to be done is durable.
4. Recognition of the importance of work which is undertaken for the worker's own satisfaction and enjoyment.
5. A respect for personal and public property and for our natural resources.

Behaviour

1. The practice of acceptable social behaviour.
2. The exercise of initiative and the acceptance of responsibility.
3. Participation in community affairs.
4. Cooperation with individuals and groups without regard to nationality, religion or social position.
5. Reading good books for information.

Guiding Principles

1. History and geography should be closely linked to show the effect of the cultural and physical environment on man's life. The Guidance Programme should show the pupils how the knowledge gained can be applied to their own conduct.
2. Citizenship is not a subject to be taught but a spirit to be engendered. Social Studies provides many opportunities for arranging activities which develop the qualities of good citizenship.
3. Facts are important to the pupils when they enable them to explain events, understand their environment, and bring the past to life. Facts should be organized so that there is a natural growth from knowledge which is fragmentary and accidental to knowledge which is unified and meaningful.

4. It is better for pupils to find out information for themselves and draw conclusions under the teacher's guidance than to have information given to them. The habit of judgment can be fostered in pupils by leading them to think and reason for themselves about historical problems and problems which arise in the ordinary life of the school and the community.
5. Information gathered from many sources and from several books is more useful and stimulating than that gathered from one text. Historical novels and magazine articles are better collateral reading than books which closely resemble the text.
6. Accurate and balanced information about typical life in other lands is more important than the strange, bizarre and unusual. Democracy should be presented not as an ideal which has been attained but as a desirable way of life in which improvements are continually being sought.
7. Topics may be related to contemporary life through current events. For example, in studying the Magna Charta the pupils can appreciate its effect upon the freedoms we enjoy to-day through study of a contemporary legal problem.
8. Interest in a subject develops through successful activity. The teacher should arrange his programme to provide for individual differences and for work in which each pupil by honest effort may succeed.
9. Pupils gain valuable experience by working together in groups to plan, organize, and present material. A well-planned programme will require the pupils to exercise initiative and discharge responsibilities. The period of early adolescence is the best time for cooperative class work.
10. Social Studies can be correlated successfully with other subjects—for example, with English through dramatization, discussion, vocabulary study, writing stories, reports, diaries, and by using Social Studies subject matter in English compositions.
11. Maps, charts, graphs, illustrations are often more meaningful to pupils than written notes. Good records are brief, and prepared by the students, not dictated by the teacher. Letters, descriptions, summaries, newspaper reports are more valuable than notes which merely reproduce the text.

12. Visual aids and real objects bring topics to life. The Ontario Department of Education, Audio-Visual Aids Branch, has a good collection of films and slides. The most useful collections of objects and visual aids are those built up within the school.
13. Pupils should read, use and make maps frequently. They should be able to use information from maps as readily as that from the printed page.

Grade Seven

Students in Grade VII are too immature for a systematic and chronological study of geography and history. Social Studies in Grade VII aims to give the students an understanding of vital aspects of Canadian life. The development of a particular theme in Canadian life is followed rather than the development of Canada as a whole. The reasons for various developments and the effects upon them of geographical factors should be understood. For a thorough understanding of a particular theme or topic, its relationship to the general Canadian background must be established at significant points.

The best basis for introducing and understanding social relationships is the local community itself. An understanding of the geography and of the peoples who make up our communities is the best background for interpreting problems on a national or world scale or for re-creating the past.

Many suggestions for developing the units are offered. Some of them show how Social Studies combines with other subjects of the curriculum in one activity. The teacher of Social Studies who is also the teacher of another subject, especially English, will find many opportunities to use the material and skills of one subject in teaching the other. These suggestions and the topics are not exhaustive, and none of them is intended as obligatory. Teachers should go outside and beyond them in drawing up their own courses to suit their own classes and the life of their own communities.

Unit I Our Local Community

Objectives

1. To understand how the community began.
2. To appreciate the contributions of many peoples and individuals.

3. To make judgments on the basis of fact rather than prejudice.
4. To develop a feeling of partnership with the various groups which comprise the community.
5. To develop a growing sense of belonging to the community.
6. To discover the geographical features of the community and to understand their effects.

Topics

1. The people of our community
 - (a) national backgrounds
 - (b) religious groups
 - (c) special contributions of groups and individuals
 - (d) unifying influences, combatting prejudice, objectionable propaganda, "scapegoating"
 - (e) welcoming newcomers to the community
2. Living and working in our community
 - (a) types of work carried on and reasons for them
 - (b) the value of all useful work and the interdependence of workers
 - (c) source of raw materials and equipment used in the community
 - (d) housing
 - (e) reasons for restrictions and planning
 - (f) the dependence of one community upon another

Suggestions

Find the national origins of families represented in the class. Make a census of community groups.

Make a map showing their ancestral homes.

Make an oral report on a famous man from your ancestral group. From the daily paper find examples of good citizenship, and examples of propaganda and prejudice.

Write a skit contrasting a reasonable with a prejudiced person, or one dramatizing the arrival of a newcomer to your community.

Make a map showing the chief industries.

Visit a factory or interview the owner to find the source of the materials used and where the goods are sent.

Make a map or chart of this information.

Investigate the evils of slums by observation, from newspapers. Find out what building restrictions apply to a building under construction, or to the school. Discuss purpose of them.

Make a sand-table model of the community.

Discuss practical ways of beautifying homes and school grounds. Organize a project for improving the school grounds or decoration.

3. Community organizations and services: church, library, health, service and other clubs, farm forums, home and school, night school, scout and guides

Students make a survey of community organizations, find out by letter or interviews the purposes of the organizations, when they meet, who may belong.

Conduct a meeting during a class period.

4. Knowing the surrounding countryside with the help of the topographical map of your area
 - (a) differences between small scale and topographical map
 - (b) information on topographical map
 - (c) some conventional signs
 - (d) finding position on a map
 - (e) measuring distances

Knowing the meteorology of the surrounding area; local observations of temperature, rainfall, wind velocity and direction

Make a sand-table or asbestos model of a small area. Identify the physical features.

Take a hike through the countryside noting how surface features are represented on the map.

Investigate how the community can be improved by practical conservation measures.

Discuss the responsibility of each individual.

5. The founding of our community
 - (a) first settlers
 - (b) the region as they found it
 - (c) reasons for change
 - (d) social life in early days; "bees"
 - (e) origin and meaning of the name of the community

Borrow or collect objects and pictures illustrating early life.

Interview people who know the history of the community.

Make a map of the routes used by the first settlers.

Make a model or a mural of the pioneer settlement.

Visit the clerk of the community and find out when important changes occurred.

Make maps of the community at different periods.

Visit places of historical interest.

Unit II How Environment Affected Our Earliest Inhabitants

Objectives

1. To understand the broader geographical features of Canada and to examine the ways in which this environment affected life in typical regions.
2. To appreciate the culture of these early inhabitants.

Topics

Suggestions

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| 1. How the native peoples lived in forested areas | <p>Make a map showing forests and waterways and locate a few Indian tribes.</p> <p>Have students report what they know of Indian life from previous reading and from first-hand knowledge.</p> <p>Contrast the natural conditions of the area in those times with its present state.</p> <p>Make a sand-table display of a typical area.</p> <p>Examine the possibility of the Indians' living differently than they did.</p> <p>Investigate similarities between our games and theirs.</p> <p>Make a collection of Indian relics.</p> |
| 2. How the open plain shaped its own particular pattern of living | <p>Collect pictures which show the natural appearance of the countryside.</p> <p>Those who have seen the West give descriptions of it.</p> <p>Investigate the part played by animals in the life of these people.</p> <p>Read Indian legends, sing some Indian songs.</p> |

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| <p>3. How a sea-coast area affects human life</p> | <p>Develop clear ideas regarding the nature of the country through collected pictures, film strips, slides.</p> <p>Map the area along the Pacific coast, showing bold physical features, location of tribes.</p> <p>Investigate the meaning of totem poles.</p> <p>Discuss materials they used, tools, equipment and products. Visit a museum.</p> |
| <p>4. Comparison of these environments and their effects on living</p> | <p>Construct an asbestos map showing the broad physical features of Canada.</p> <p>Have a panel or group discussion on the relation of the physical features, climate, natural products, of the three regions to the life of the people along some of these lines—food, clothing, shelter, work, crafts, division of work between men and women, travel.</p> <p>Have the students attempt a discovery of the ways in which members established social customs, enforced order and justice, met nature's hardships, fought wars and maintained peace.</p> |
| <p>5. The Indian as a citizen of Canada to-day</p> <p>(a) occupations</p> <p>(b) health</p> <p>(c) famous Indian citizens</p> <p>(d) reservations</p> | <p>Map chief reservations.</p> <p>Write a biography of a famous Indian leader.</p> <p>Collect items from newspapers. Read extracts from reports of the Department of Indian Affairs.</p> |

Unit III Canada's French Canadian Community

Objectives

1. To understand the life of the people in New France.
2. To study the geography of the area and to see how the en-

vironment of the New World influenced the life of settlers from France.

3. To understand the customs introduced and the reasons for them.
4. To appreciate the lives of some of the men and women who played an important part in Canada's early life.

Topics

Suggestions

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|---|---|
| <ol style="list-style-type: none">1. Descendants of New France in Canada to-day<ol style="list-style-type: none">(a) French Canadians in the local community(b) their numbers and location in Canada and the U.S.(c) famous French Canadians of to-day2. The beginnings of the community<ol style="list-style-type: none">(a) discovery and exploration by Cartier(b) exploration and settlement by Champlain3. The struggle of the community to maintain itself in the New World<ol style="list-style-type: none">(a) the river, the forest, the climate(b) the Indians(c) the English and New Englanders(d) communication with France | <p>Compare the ethnic situation in Canada with that in Switzerland, Louisiana, New England.</p> <p>Pupils describe visits to Quebec.</p> <p>Make maps showing routes of Cartier and Champlain.</p> <p>Prepare an imaginary speech by Cartier or Champlain to friends in France giving his impressions of New France, or one he might give if he returned to Canada to-day.</p> <p>Make a sand-table model of Quebec or the St. Lawrence valley.</p> <p>Write a letter by a settler comparing his surroundings in New France with those in Normandy.</p> <p>Read stories or passages from historical novels.</p> |
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| <p>4. The life and work of the people</p> <p>(a) numbers</p> <p>(b) the habitant and the seigneur</p> <p>(c) priests and nuns: Laval, Marie l'Incarnation, Bréboeuf</p> <p>(d) government officials: Talon, Frontenac</p> <p>(e) soldiers: D'Iberville</p> <p>(f) explorers: La Salle</p> <p>(g) coureurs de bois</p> | <p>Make a map or model of a seigniory.</p> <p>Compare the system of holding land with the free-hold system. Discuss its effects.</p> <p>Sing French Canadian Songs. Collect pictures of handicrafts, farms, churches, villages.</p> <p>Dramatize a family scene or an important event.</p> <p>Pupils compare life in a French parish with their own: a discussion or an article.</p> |
| <p>5. France loses her colony</p> | <p>Discuss briefly the war between England and France, abroad and in Canada, using a blackboard map.</p> |
| <p>6. Britain takes a French colony within the Empire</p> <p>(a) problems and experiments</p> <p>(b) partnership, and guarantees for the French way of life: the Quebec Act</p> | <p>Find out why England considered the capture of Quebec so important.</p> <p>Prepare an imaginary conversation in which Carleton or Murray explain to a friend the problems of governing the colony.</p> <p>Collect information from many sources to show that the principles of the Quebec Act still operate in Canada.</p> |

Unit IV Fur Traders Open Up the North-West

Objectives

1. To learn about the daring men who first explored Canada's unknown lands.
2. To learn why the fur-trade was the chief means of opening up the country.
3. To learn some of the routes used and the difficulties the fur-traders faced.
4. To understand the relation of the fur industry to the physical and climatic conditions of northwestern Canada.

Topics

Suggestions

1. The Founding of the Hudson's Bay Company

Discover the circumstances under which the English got a foothold in the Bay.
On a map of the Bay, locate the forts and record the French attempts to dislodge them.
2. The Value of the Trade

Make a map showing the area included in the charter and its physical features.
Study the distribution of the fur-bearing animals to discover any bearing of climatic conditions upon the fur industry.
3. The North-West Company: A Rival in the Field

Compare and contrast the organization and personnel of the two companies.
Make a map of the route taken by North-West traders from Montreal to the West.
In pictures, in drawings or in models, set up a display of the goods traded for furs.
Dramatize groups of voyagers meeting at Grand Portage and exchanging news of east and west.
4. The Two Companies in Conflict

What competitive advantages were enjoyed or employed by each of the companies?
Make a map of the explorers' routes showing heights of land, rivers and the location of large areas of forest, swamp and plain.
Debate the question which company contributed more to the opening up of the country.
Have two groups of North-westerners, representing differences of opinion, debate the alternative: going on in their conflict or uniting with H.B.C.

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| 5. The Two Companies Unite | <p>Have the students attempt a drawing or a cartoon to represent the union.</p> <p>Discuss the probable attitude of the new H.B.C. towards settlement of the West.</p> <p>Investigate the present day functioning of the H.B.C. Record some of the findings on maps.</p> |
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Unit V The Growth of Population and the Spread of Settlement

Objectives

1. To learn where the first settlements began.
2. To appreciate the contributions of the early settlers to Canada's development.
3. To learn why successive waves of settlers came to Canada and where they settled.
4. To appreciate and understand the many ethnic groups that comprise Canada's population.
5. To see the influence of geographic and economic factors upon the spread of settlement.

Topics

Suggestions

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|---|--|
| 1. The people of Canada to-day
(a) Compare the chief groups in the local community with those in Canada as a whole with respect to occupations, national background
(b) Compare the number and location of Canada's population to-day with those about 1770 | <p>Make charts and maps showing distribution, density and national origin of the Canadian people.</p> <p>Build up a blackboard map locating French in Quebec, Acadia; English, Scots, New Englanders, Germans in Maritimes.</p> <p>Students tell of relatives and friends in other parts of Canada.</p> <p>Students prepare family trees showing origin, date of arrival in Canada, spread of family.</p> <p>Make charts and graphs from statistics in Canada Year Book.</p> |
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| <p>2. The people of the Maritimes and Newfoundland</p> <ul style="list-style-type: none"> (a) the United Empire Loyalists (b) the clipper ship and world trade (c) lumbering, farming, coal, fish | <p>Write a letter or prepare a speech by a Loyalist explaining why he came to Canada.</p> <p>Collect pictures, anecdotes, letters illustrating the Loyalist immigration.</p> <p>Dramatize a conversation of typical Loyalists discussing their problems.</p> |
| <p>3. The people of Quebec</p> <ul style="list-style-type: none"> (a) New Englanders in Montreal (b) Loyalists in Eastern townships | <p>Mark the chief settlements on a map.</p> <p>Find buildings, farms, and streets, in the community that date from this period.</p> |
| <p>4. The people of Ontario</p> <ul style="list-style-type: none"> (a) the United Empire Loyalists (b) land and immigration schemes: Talbot, Robinson, Canada Co. (c) the hungry forties: waves of immigration from Ireland, Scotland (d) free land: pioneers from U.S.A. | <p>Read stories and descriptions of pioneer life.</p> |
| <p>5. The slow growth of population after Confederation</p> | <p>Find out the growth of the U.S. after the Civil War and why many Canadians went to the U.S.</p> |
| <p>6. The people of the West</p> <ul style="list-style-type: none"> (a) the métis and Selkirk (b) Laurier's national policies and the settlement of the west (c) wheat growing and ranching | <p>Dramatize the important events in Selkirk's life.</p> <p>Make a speech such as an immigration agent might have given to attract Europeans and Americans to Canada.</p> <p>Collect pictures and news items of Ukrainian, Mennonite, etc. settlements.</p> <p>Make a poster or pamphlet such as might have been used to attract settlers.</p> |

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| <p>7. The people of the Pacific Coast
 (a) the Vancouver Island settlement
 (b) the gold rush
 (c) immigration from the Orient
 (d) fishing, fruit farming, lumbering and world trade</p> <p>8. New discoveries and new industries make new communities
 railways, mining, oil, marquis wheat, pulpwood</p> <p>9. Immigration after World War II.</p> | <p>Read Service's poems.
 Collect pictures and anecdotes of the gold rush.</p>
<p>Collect articles and clippings describing new communities. Read the financial pages of daily papers.</p>
<p>Students find out government regulations regarding immigration, report on occupations engaged in, famous New Canadians. List arts, crafts and skills brought from homeland to Canada by newcomers.</p> |
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Unit VI Living in a Democracy

Objectives

1. To understand democracy as a way of life.
2. To understand the importance of courtesy and willingness to help others on the part of each citizen.
3. To appreciate the freedoms we enjoy.
4. To appreciate the struggles for democracy and the necessity for working to preserve and improve it.

Topics

1. A democratic school organization, such as council, Junior Red Cross Society

Suggestions

Organize the class in a democratic way to carry out some class or school duties.

Discuss these aspects of such a group:

- (a) delegation of responsibility
- (b) discussion and compromise
- (c) acceptance of privileges and responsibilities
- (d) necessity for intelligent voting and for continuing interest.

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| <p>2. Democracy in action at one or more of these levels:
local, provincial, dominion</p> | <p>Discuss the above aspects as they apply to the Dominion Government.</p> <p>Visit a session of the local, provincial or dominion governing body.</p> |
| <p>3. Our Freedoms</p> <p>(a) Freedom of speech</p> <p>(b) Freedom of worship</p> <p>(c) The right of private property</p> <p>(d) Justice for all</p> | <p>Collect newspaper clippings which illustrate our possession of these freedoms.</p> <p>Debate the topic—A man's home is his castle.</p> <p>Visit a court. Follow a trial to its conclusion through newspaper reports.</p> <p>Read or dramatize events in Canadian history by which these freedoms were won.</p> |
| <p>4. Paying for our freedoms</p> <p>(a) taxes</p> <p>(b) voting</p> <p>(c) service in the armed forces</p> | <p>Students find out from parents and business men what taxes they pay.</p> <p>Study budget of local, provincial or dominion government.</p> <p>Discuss: "We don't have to pay for it; the government provides it."</p> <p>Find the percentage that voted in a recent election.</p> |

Unit VII Our Dominion Story

Objectives

1. To learn the story of how Canada was expanded from sea to sea.
2. To learn how the obstacles were overcome.
3. To note the evidences of unselfish co-operation which made union possible.
4. To learn about some of the men who brought about Confederation.

Topics

Suggestions

1. Early British Colonies

Make a map showing the British Colonies of 1864.

Have pupils prepare a brief report on population, prosperity and political aims of each one at this time.

Have pupils describe the barriers between the colonies and the bonds between them.

2. Problems of the early colonies

Have committees of pupils find information and discuss:

(a) why most trade flowed north and south

(b) the deadlock in the Canadian government

(c) the fear of an attack by U.S.A.

(d) the costly improvements needed.

(e) England's attitude to the colonies

3. John A. Macdonald and George Brown

Have an imaginary interview to bring out the main problems of the day.

Write biographies or character sketches.

Make cartoons or study Bengough's drawings.

4. Settling differences by conferences

Charlottetown
Quebec

At an imaginary conference men like D'Arcy McGee, Tilley, Tupper, etc. give views of their provinces.

Teacher tells the story of these conferences.

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| <p>5. From Sea to Sea
 Prince Edward Island
 Rupert's Land
 Manitoba
 British Columbia and
 the building of the
 C.P.R.
 Alberta
 Saskatchewan
 Newfoundland</p> | <p>What made P.E.I. change her mind six years later?
 Have a delegation from the government discuss terms with representatives of the Hudson Bay Co.
 Make a map showing the route of the C.P.R.
 Prepare a short speech that John A. Macdonald might have given to persuade parliament to build the railway and a short rebuttal by a member of the opposition.
 Until transcontinental railways were built communities set their own "sun time". Make a map to show Fleming's solution by "time belts".
 Why did Newfoundland not wish to join Confederation in 1867?
 Why was Newfoundland willing to join in 1949?
 Have pupils list some of Canada's achievements over the last 80 years.</p> |
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Unit VIII The Work of the Canadian People

Objectives

1. To obtain a knowledge of the various types of work being done by Canadians.
2. To appreciate the interdependence of workers.
3. To appreciate the value of all useful work.
4. To gain an understanding of the way of life of various types of workers.
5. To develop pride in doing useful work well.

Topics

Suggestions

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| <p>1. Workers in the Community</p> | <p>Make a survey of the type of work being done by neighbours of the children in the class.</p> |
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2. Farm workers of Canada Discuss the contributions of the farmer to our daily life.
Locate the chief farming areas of Canada.
Consult the Canada Year Book to find the chief farm products produced.
Through a panel discussion or family conversation have the class portray farm life conditions. Discuss the advantages and disadvantages of farm life.
Prepare a sand-table display depicting the conservation of soil.
3. Canadian Fishermen Collect pictures and clippings. Read stories or plays dealing with these occupations.
4. Canadian Lumbermen
5. Canadian Miners
6. Canadian Factory Workers Have pupils examine manufactured articles in the home and find where they were made.
Visit a factory, noting the interdependence of workers, etc.
Discuss working conditions.
Locate the chief manufacturing cities on a map.
Pupils discuss the chief manufactured articles of various cities. Follow the development of an agreement between union and management through the press.
7. Canadian Transportation Workers Make a map showing the chief routes of the C.N.R. and C.P.R. Take imaginary trips with a truck driver through Ontario.
Discuss the route and importance of the T.C.A.
Discuss a typical day in the life of one or more of these workers.

Books for Pupils

Brown, Harmon and Jeanneret: *The Story of Canada*. Copp, Clark.
Taylor, Seiveright and Lloyd: *Canada and Her Neighbours*. Ginn.
Conservation Illustrated. Canadian Nature Magazine.

Books for Teachers

Brown: *Building the Canadian Nation*. Dent.
Creighton: *Dominion of the North*. Houghton, Mifflin.
Lower: *From Colony to Nation*. Longmans.
Dorland: *Our Canada*. Copp, Clark.
Rogers: *The English-Speaking World*. Clarke, Irwin.
McLeod: *Citizenship Training*. Dent.
Brown: *Canadian Democracy in Action*. Ontario Department of Education.
King and Quillen: *Living in Our Community*. Gage.
Taylor: *Canada*. Methuen.
Smith: *North America*. Harcourt, Brace.

Social Studies in Grades VIII, IX, and X

Suggested fields for study in these grades are:

Grade VIII: Canada and the Commonwealth

Grade IX: Canada and the United States

Grade X: Canada and the Modern World

MATHEMATICS

General Introduction to the Programme of Grades VII, VIII, and IX

The Role of Mathematics

An understanding of the role of mathematics in the development of modern civilization is important at the present time. The ability to compute accurately and to think clearly in terms of quantities, either specific or generalized, is becoming of increasing value in all phases of social and economic life.

Relation to Pupil's Experience

If the pupil realizes the part which mathematics plays in his daily life, the subject becomes meaningful to him. Mathematics is challenging and interesting to the pupil who sees its importance in his home and in his community. The material presented, therefore, should be related as closely as possible to situations that are within the experience and comprehension of the pupil.

The Study of a System

While the ideal method is to develop concepts in mathematics from the personal experience of the pupil, it should be remembered that mathematics is the product of racial experience — the collective result of a large number of thinkers. Pupils in Grades VII—IX should begin to gain an appreciation of Mathematics as a logical system by developing some of the underlying principles. The understanding of these principles and the mastery of the related skills require intellectual effort on the part of the pupil. It is the task of the teacher to create conditions which will make the pupil willing and eager to undergo this intellectual discipline because he feels it to be eminently worthwhile.

A Sense of Accomplishment

The value of confidence which comes from successful accomplishment as a result of the pupil's best effort should always be kept in mind. The pupil should be encouraged to aim at a high degree of accuracy in the fundamental operations. Success in Mathematics is based on ability to think independently and logically, to express ideas clearly and concisely, and to set them down accurately and neatly. In the selecting and designing of exercises, however, the degree of difficulty should be adjusted to the mental maturity of the pupil so that he has a reasonable opportunity of being successful.

Remedial Teaching

At the beginning of the school term the teacher should not assume that his pupils are fully, or equally, competent in the work of the preceding grade. Standardized achievement tests are useful in indicating the pupil's level of accomplishment in comparison with what may be expected of the average pupil under normal conditions. The results of such tests, viewed in the light of the mental age of the pupil, will often indicate the kind of remedial teaching that is necessary. The teacher should not postpone this remedial work until the next term or until the next grade, but should begin it as soon as the need is revealed. Failure to do this will result in an accumulation of faulty habits, repetition of errors, improper techniques and undesirable attitudes.

Problem Solving

The aim in solving problems should be to develop a general method of attack rather than to depend upon the solution of particular samples. Success in problem solving results from individual initiative and logical procedure. One simple method which may be followed is for the pupil to ask himself:

1. What information is given and what is required?
2. To determine what is required, what facts do I need to know?
3. What can be found from the given information?
4. How can I bridge the gap from what I know to what I need to know?

Frequently pupils are unable to solve written mathematical problems owing to lack of reading ability rather than because

of any lack of mathematical knowledge. A recognition of this weakness should suggest the necessity for special instruction in reading mathematical problems.

Difficulty in solving problems may be due to an emotional disturbance of some kind. Such emotional blocking may arise from the sense of frustration experienced by the pupil when he is required to attempt problems above the level of his maturity or to apply principles which have not been thoroughly taught by numerous simple examples.

Conservation

It is important that pupils develop an intelligent appreciation of the need for conserving our natural resources of forest, farm and water supply. The teacher's attention is called to the report of the Ontario Royal Commission on Forestry, 1947, Ch. XIV, in which the relation of conservation to education is discussed. Problems in mathematics may be related to the various phases of conservation — forests, soil, and water supply. Teachers of mathematics should cooperate with teachers of other subjects in coordinating the work on conservation. An appropriate topic might be the calculation of the cost of shrubs, flowers, seeds, and paint for the improvement of the school grounds.

Objectives

The preceding remarks illustrate some of the following objectives of the work in Grades VII, VIII and IX.

1. A thorough understanding of the fundamental operations and increasing power to apply them with accuracy and facility.
2. A continuous development of the capacity for mental calculation.
3. Ability to apply mathematical knowledge to the solution of problems which are meaningful to the pupil and of social value.
4. Self-reliance which comes from willingness to attack and ability to solve problems.
5. Acquisition of the habit of judging the reasonableness of an answer and of checking its accuracy.
6. The drawing of valid conclusions from experiments in simple space relationships.

7. An understanding of the generalization of number and of the application of algebra to simple problems.
8. An appreciation of the wide application of mathematics and of its influence in the advancement of civilization.
9. A sense of personal responsibility for accuracy, neatness and precision, with the consequent feeling of satisfaction resulting from work well done.
10. The discovery and development of individual mathematical abilities, aptitudes and interests so that pupils will desire to continue the study of the subject.

Grade Seven

I. Skill in Fundamental Operations

Preliminary Survey of the class-group to determine the achievement levels of the individual pupils.

Diagnostic testing and remedial treatment as needed.

Frequent, regular, and well-motivated drill in the work of Grades I to VI, involving the fundamental operations.

Drill practices on new work of Grade VII, following presentation of each topic, together with periodic cumulative review throughout the year.

Suggestions

1. Teachers are reminded of the value of frequent, varied, and carefully planned oral practice in all phases of the work. The resourceful teacher will be ready to improvise practice material and problems suited to the needs of the pupils, supplementing the exercises provided in the text.
2. Teachers should endeavour to impress the pupils with the necessity of striving for a high degree of accuracy in the fundamental operations. To this end the complexity of the exercises should be carefully adjusted to the pupils' abilities.
3. If properly motivated, drill practice can be made a part of the mathematics period. Care must be taken that incorrect methods are not perpetuated by unsupervised practice and that mere repetition is not depended upon to produce the desired improvement.

II. Common Fractions

Meaning and use.

Review of addition and subtraction.

Multiplication:

Fraction by a whole number.

Whole number by a fraction.

Fraction by a fraction.

Mixed number by a fraction.

Mixed number by a mixed number.

Simplification of fractions through division of numerator and denominator by a common factor.

Practical problems involving fractions.

Suggestions

1. It is essential that the work in fractional numbers be introduced through numerous simple concrete examples. An aid in making clear the meaning of a fraction at this stage might be to write $\frac{2}{5}$, say, as 2 fifths.
2. It is important also that operations with fractions should be based on techniques which are clearly understood and which are as closely as possible related to the fundamental properties of a fraction. In short, the understanding of numerous specific concrete illustrations should always precede the learning of a mechanical technique.

The review work in fractions should stress the fact that the value of a fraction is unchanged by multiplying or dividing numerator and denominator by the same number. This principle should then be used as generally as possible as the basis for teaching the procedure to be followed in the fundamental operations with fractional numbers.

III. Decimal Fractions

Meaning and use.

Review of addition and subtraction.

Multiplication:

Decimal by a whole number.

Decimal by 10, 100, 1000, etc.

Whole number by a decimal.

Decimal by a decimal.

Treatment of zeros in decimal answers.

Placing decimal point by inspection when multiplying by 10, 100, 1000 — .1, .01, .001.

Practical problems involving decimals.

The common metric units of length (metre, cm., mm.)

Suggestions

1. The mechanical rule for the placing of the decimal point in the product of numbers involving decimal fractions should be postponed until repeated simple examples based on a step-by-step development prepare the pupil for this technique; thus:

$$3.1 \times 4 = 3\frac{1}{10} \times 4 = 12\frac{4}{10} = 12.4$$

$$12.32 \times 9 = 12\frac{32}{100} \times 9 = \frac{1232}{100} \times 9 = \frac{11088}{100} = 110.88$$

$$2.4 \times 3.6 = \frac{24}{10} \times \frac{36}{10} = \frac{864}{100} = 8.64$$

2. Examples should probably be confined to numbers containing not more than 3 places of decimals.
3. The teacher should keep in mind that in certain cases an operation may be more readily performed with the corresponding common fraction than with the decimal:

$$\text{e.g., } 24 \times .25 = 24 \times \frac{1}{4} = 6$$

Hence the pupil should be given practice in converting decimal fractions into their common fraction equivalents:

$$\text{e.g., } .25 = \frac{25}{100} = \frac{1}{4}$$

$$.375 = \frac{375}{1000} = \frac{3}{8} \text{ etc.}$$

IV. Percentage

Meaning and use.

Equivalent forms, 5 per centum, 5 per cent.

$$5\%, \frac{5}{100}, .05$$

Meaning of 100%: the whole quantity, $\frac{100}{100}$, 1.

Expressing simple percents as decimal fractions.

Expressing decimal fractions as percents.

Expressing a percent as an equivalent common fraction.

Expressing halves, fourths, fifths and tenths as percents.

Finding a percent of a number:

- (a) by expressing the percent as a decimal fraction and multiplying;
- (b) by using the common fraction equivalent of the percentage and multiplying.

Expressing one number as a percentage of another.

Simple practical problems involving percentage.

Suggestions

1. Pupils should be given practice in using both decimal and common fraction equivalents in the problems involving percentage so as to develop judgment in choosing the more suitable form.

Thus $\frac{1}{6}$ is to be preferred to .166 or .167, but .04 is

usually to be preferred to $\frac{1}{25}$.

2. The work on common fractions, decimal fractions, and percentage should result in the pupils being thoroughly familiar with such equivalent forms as the following:

$$\frac{1}{2} = .5 = 50\%$$

$$\frac{1}{4} = .25 = 25\% \text{ and its multiples}$$

$$\frac{1}{8} = .125 = 12\frac{1}{2}\% \text{ and its multiples}$$

$$\frac{1}{5} = .2 = 20\% \text{ and its multiples}$$

$$\frac{1}{10} = .1 = 10\% \text{ and its multiples}$$

Memorization should result from and not precede repeated use.

V. Practical Problems

Arising in the ordinary life of pupils in school, home and local community:

Games, cooking, woodworking, sewing.

Keeping cash accounts of newspaper sales, care of chickens or live stock, together with the use of bills and receipt forms.

Budget for boys and girls allowance, holiday money, club funds.

Managing Junior Red Cross and other similar funds.

Travel by car, bus, train.

Conserving the resources of the home, the farm, the local community and the country at large.

Improving the school grounds.

Earning money by selling on commission.

Taking advantage of discounts:

in paying bills—gas, water, electric,

in paying cash for purchases,

in bargain sales.

Suggestions

It is extremely important that the pupil should be prevented from acquiring an attitude of frustration toward problem solving. In order to avoid this, the teacher should constantly keep in mind the following considerations:

1. While it is true that a problem may naturally be used to introduce the discussion of a topic, yet care should be taken that the fundamental principles involved are thoroughly understood, through the use of a series of simple numerical illustrations, before any extensive problem assignment is given.
2. Thorough oral discussion of illustrative problems together with the development of oral solutions should precede written work.
3. The teacher should never be in a hurry to introduce a formula or a mechanical technique. With junior pupils particularly, the procedure should be to emphasize the fundamental principle involved by applying it to numerous concrete examples and to delay the introduction of any generalizing formula or

mechanical method until the pupil has become thoroughly familiar with the underlying idea. This is desirable for two reasons:

- (a) in order that the pupil may not solve the problem in a purely mechanical fashion, and
- (b) in order that, should the pupil forget the formula, he may still be able to solve the problem from basic principles.

The formula $i = prt$ is a case in point.

4. A major factor in the pupil's ability to solve problems is his skill in reading. Too often the teacher assumes that the pupil comprehends the problem when actually he may fail to grasp its significance. Not only, therefore, should the pupil be taught to read and re-read each question with concentration, but also the teacher should frequently determine by suitable oral discussion whether the pupil really understands the language of the question and the nature of the problem posed.
5. Pupils should be systematically trained in a desirable mental approach to the problem situation. They should be constantly reminded to ask themselves, "What am I to find?", and other similar questions which will guide their procedure.
6. It is important that the pupil should learn to estimate his answer in advance of the solution, to check his final answer for reasonableness, and then to verify it for accuracy.
7. A pupil's training in neatness and orderliness of work will reveal itself in the manner in which he sets down his written solutions. Here he should have the benefit of careful training and constant supervision from the beginning. Statements should be as clear and concise as possible, and any necessary mechanical work should be shown adjacent to the written solution.

VI. Measurement

Review of linear and square measures.

Finding the area of a rectangle.

Meaning of volume — the cubic inch, the cubic foot, the cubic yard.

Finding volumes of rectangular solids and contents of rectangular containers.

Straight lines — vertical, horizontal, oblique, perpendicular.

Measuring accurately with ruler graduated to sixteenths of an inch and to millimetres.

Drawing lines to scale.

Interpreting pictographs, bar graphs, and line graphs.

Making simple bar graphs, line graphs, and scale drawings.

Suggestions

1. Each classroom should possess at least the following items of equipment:
 - A bulletin board on which pupils' recent work in mathematics, or current topics of mathematical significance may be displayed.
 - A section of cross-ruled blackboard or, perhaps better, a cross-ruled chart attached to a spring roller.
 - Yard stick, metre rule and several straight-edges.
 - A set of models of the common solids, particularly a subdivided cubic foot.
 - Pint, quart, gallon, peck and bushel measures.
2. Each pupil should have a ruler, graduated in sixteenths of an inch and in millimetres. A supply of squared paper, ruled ten lines to the inch, should be available.
3. In connection with exercises in accurate measurement, pupils should be given practice in estimating the measures of objects and familiar distances, and in using the unit of measurement suited to the occasion. They should also be introduced in an elementary way to the idea of approximation in the expression of measured quantities.
4. The introduction and use of formulas in measurement should be avoided until the pupil is thoroughly familiar with the fundamental concepts on which the formulas are based. The development should always be graphical and objective, and the applications simple and meaningful.
5. Line graphs should be developed directly from bar graphs. A line graph should be considered as the upper boundary of a series of vertical bars.
6. At this stage the right angle might be thought of simply as a square corner, an idea already familiar to the pupil.

GENERAL SCIENCE

Aims

The aim of the course is to contribute to the healthy growth of the pupil, from childhood to citizenship in a democratic community, by using the material, method, and attitude of science. Knowledge is a necessary step towards the attainment of the objective, but knowledge itself is not the principal aim nor is it an end in itself. The teacher of science aims to develop a person who will possess:

1. An understanding of the natural environment of man so that he will appreciate its complexity, its order, and the need for conserving natural resources;
2. Desirable attitudes of mind—especially curiosity, suspending judgment, tolerance, willingness to be convinced by evidence, looking for natural causes, and the connection between cause and effect;
3. The power and habit of “straight thinking” — of seeing a problem, collecting and weighing evidence, reaching a sound, sincere conclusion—and the emotional maturity which results from this;
4. Good habits of work and self-expression, especially accuracy, organization, and conciseness;
5. Good health habits;
6. An interest in reading the literature of science, in conducting hobbies, in exploring the branches of natural science, and in discovering the applications of science to work and life;
7. The ability to do simple tasks which require a knowledge of practical science in the home, in the garden, and on the farm.

The course has been divided into parts “A” and “B”. Part “A” consists of a core of topics which are of general interest to all children and for which material should be available in any locality. Part “B” consists of optional topics in which the degree of interest may vary in different localities. The number of optional topics taken will depend on the time and resources available and on the interests of teacher and pupils. A minimum of two is suggested.

The course is presented in the form of problems. This method should challenge and interest the pupil, encouraging observation, investigation, reading and research, experimentation and generalization. An attempt has been made to organize and integrate topics studied in the preceding grades and to encourage children to reach broad generalizations from previous observations.

An effort has been made to unify the various topics into a related whole. For example, plants, soil, air, and water are taken together and their inter-dependence established. Emphasis has been placed on the adaptations which plants have evolved to meet special needs or conditions.

The type and size of the community must be considered when problems, illustrations, and applications of the scientific principles are selected. For example, as sources of plant material urban pupils may use lawns, gardens, and parks, whereas rural pupils may use the fields.

No teacher should hesitate to substitute other topics or to make changes in this course which seem desirable.

Science Notebooks

Science notebooks can be a valuable aid in stimulating the pupils' interest, effort, and activity. They are records of how the pupil organizes his thinking; they help measure the results of teaching. They can be used to encourage habits of accuracy, neatness, and clear expression and to give the pupil an opportunity of applying his special interests (in drawing, writing, collecting) to the learning of the subject.

A systematic arrangement should be adopted for keeping records in the notebook. Each day's record should bear the date and appropriate heading. Diagrams should be analytical, and designed to show structure. Elaborate drawings which emphasize shading and colouring fail to achieve the objective or to justify the time involved. However, colour may be used effectively for contrast and vividness in illustrating such items as the mercury in a thermometer.

The teacher can help the pupils to keep good notebooks by setting up standards, by guidance, and by encouragement. The copying of notes from the blackboard, books, or dictation is seldom justified. Blank-filling exercises of the work-book type

help in the correct use of terminology but rob the pupil of opportunities to practise clear expression. The pupil's notes in many lessons may be the answers to a series of questions on the blackboard. In others they may be an expansion of a summary of headings on the blackboard.

Early in each term a pupil should select a topic for development in his notebook by appropriate clippings, drawings, and notes. Examples of such topics are: Great Women of Science, Eminent Living Scientists, The Story of a Plant, A Visit to the Forest, We Live in Air, Gardens, Conservation, Saving the Soil, Using New Ideas, Science Helps the Farmer.

A Suggested Teaching Procedure

No course of study is a substitute for inspirational teaching. The personality of the teacher far transcends any organization of material or the formulation of any method.

1. Presenting the Problem

Ask questions designed to relate the unit of study to the real life experiences of the pupils. Stimulate interest in the unit by discussion. List on the blackboard questions raised during the discussion which the pupils cannot answer or should investigate further.

2. Gathering Information

Working in small groups, pupils should gather information from reference books, perform experiments, take field excursions, or interview informed persons.

3. Making a Generalization

The pupils must be given opportunities to use the generalization for predicting and explaining. For example, after the pupil learns that plants require sunlight, he should be able to forecast or explain the poor growth of most plants under trees. This is an important step in the learning process which helps the pupil to transfer his learning to his daily life. A person who understands a scientific principle should behave differently from one who does not.

Equipment

The following equipment should be in every school in which this course in Science is offered. Some of the items may be easily improvised; others may be purchased locally from drug

stores. The quantities indicated are recommended for the use of small groups in the smaller schools. The cost will be approximately fifteen dollars.

Quantity	Description
12	Pyrex Test Tubes, 6 x $\frac{3}{4}$ "
6	Beakers, Pyrex, 150cc capacity
3	Watch Glasses, to cover beakers, 3"
6	Florence Flasks, Pyrex, 250cc capacity
6	Rubber Stoppers, 2 hole, to fit above flasks
3	Pyrex Flask, 500cc capacity
3	Rubber Stopper, 2 hole, to fit above flask
1 lb	Glass Tubing, 5mm inside diameter
3 ft	Rubber Tubing, for connections, (to fit glass tubing)
3	Evaporating Dish, 7cm diameter, No. 00
3	Test Tube Holder
3	Alcohol Lamps, 4 oz capacity
1 qt	Methyl Hydrate
2	Pairs of crucible tongs
2	Glass funnels, 75mm
1 pk	Filter paper to fit above
1	Iron tripod with screen
1 pk	Lime water tablets
1	Test tube brush
4	Candles

Grade Seven

Part A

Plants Are Important to Us

- How has man made use of plants?
 - How is man dependent on plants for
 - home building
 - clothing
 - food
 - beautification
 - drugs
 - fuel
 - fodder
 - oils
 - soil improvement
 - other needs?
 - Prepare an oral report describing the history, development, and use of any plant mentioned in 1 (a).
- How are plants adapted to their natural environment?

Study two plants to determine how each of these parts adapts it for survival:

 - root
 - stem
 - leaf
 - flower
 - fruit
 - seed.

3. What are basic needs of plants?

- (a) Conduct experiments or recall observations to prove that plants require
 - (i) water (ii) light (iii) warmth (iv) air (v) minerals.
- (b) Why is growth rapid in springtime, slow in late summer and autumn, and slowest in winter?

4. Why do plants have roots?

- (a) What are the two chief functions of roots?
 - (i) What happens to the position of a plant when water washes away the supporting soil from its roots?
 - (ii) What happens to the level of water in a bottle when a complete plant is placed in the bottle with its stem surrounded by a one-hole stopper or plasticine to prevent evaporation?
- (b) Why do plants have root hairs?
 - (i) Germinate grain or radish seeds between moist blotters and observe the root hairs.
 - (ii) What happens if they are exposed to the air?
- (c) How do root hairs absorb moisture?
 - (i) Experiment with slices of slightly shrivelled beet (a) in water (b) in a salt solution.
 - (ii) Conduct a second experiment with a tube attached to an egg in a glass of water.
 - (iii) Relate the results of the above experiments to the absorption of water and minerals by root hairs.
 - (iv) Make reference to the soaking of prunes and the crisping of celery.

5. Why do plants have stems?

- (a) How does the shape of the tree contribute to the areas exposed to the light and air?
- (b) Why do some plants have (i) woody stems (ii) herbaceous stems (iii) erect stems (iv) runners (v) climbing stems?
- (c) Place the stem of a plant bearing leaves and (if possible) a white flower in a glass jar of coloured water. After several days observe a cross-section of the stem or the colour of the flower.

6. Why do plants have leaves?
 - (i) What leaf arrangements can you find?
 - (ii) Why are there leaf stalks on some plants?
 - (iii) Why are leaves generally thin and broad?
 - (iv) In what way is the leaf like a factory?
 - (v) What is transpiration? Show it experimentally.
 - (vi) Why do leaves droop and trees sometimes shed them in dry weather?
 - (vii) Why do trees shed leaves in autumn?
7. Why do plants store food?
 - (a) Test plants for
 - (i) starch with weak iodine solution;
 - (ii) oil by hitting a peanut or soyabean on a sheet of paper with a hammer and obtaining a grease spot;
 - (iii) sugar by tasting, i.e., maple sap;
 - (iv) protein by smell when burning or decomposing beans or peas. Compare the odour with that of burning feathers or wool.
 - (b) Find examples of plants which store food in
 - (i) seed (ii) fruit (iii) leaf (iv) stem (v) root.
 - (c) How does this contribute to the survival of each?
 - (d) Why does the potato shrivel when it sprouts?

The Soil That Feeds Us

1. How does man's very existence depend on the soil?
2. How do each of the following contribute to the formation and change of soil:
 - (a) (i) heat of the sun (ii) water in rivers and lakes (iii) rain (iv) ice (v) freezing (vi) wind (vii) plants (viii) volcanoes (ix) glaciers?
 - (b) Experiments: (i) Fill a bottle with water; allow it to freeze. Compare this with water that freezes in the crevices of a rock. (ii) Heat a stone or piece of glass over a flame or an electric hot plate. Then plunge it into very cold water.
3. What are the component parts of soil?
 - (a) Feel sample of garden soil for rock particles.
 - (b) Examine with a lens, noting the particles of rock and organic matter.

- (c) (i) In a tall slender bottle, or graduated glass jar, mix soil with water, shake it, and allow it to settle. (ii) Examine if possible the sides of excavations, cliffs, or gravel pits for layering.
 - (d) Examine sand, clay, and loam, noting especially the size of the particles.
 - (e) Measure a quantity of loam soil, and place it in a pan over an electric hot plate or flame. Observe the smoke-odour, and change in weight and volume.
4. What is meant by the water-holding capacity of soil?
- (a) Pour water on a sponge or dip it in water. Note the change in weight.
 - (b) Pour equal amounts of water on flower pots of (i) sand (ii) clay (iii) loam, to find which has the greatest water-holding capacity. Catch the water draining off.
 - (c) Show how the addition of organic matter affects the water-holding capacity.
5. How does water reach the surface soil?
- (a) Place tall bottles, glass tubes, or lamp chimneys containing dry sand, dry clay, and dry loam soil in a shallow dish of water. Observe the height to which the water rises in each. Relate this to soil outdoors and to plant growth.
 - (b) Discuss the effect of mulching on evaporation.
6. Why is air necessary in soil?
- (a) Recall what happens to plants under flooded conditions.
 - (b) Pour water on a pot of dry soil. Watch for bubbles to prove that soil contains air.
 - (c) Discuss the ways in which gardeners improve the aeration of the soil.
7. What constitutes good soil?
- (a) Discuss the role of the water, air, organic matter, and mineral matter in contributing to the fertility of the soil.
 - (b) Discuss the importance of earthworms.
8. How is soil fertility destroyed?
- (a) Discuss the effects of repeated cropping and of leaching.
 - (b) Pour water through the soil and evaporate the residue.
9. How does man improve the soil?
- Show the effects of commercial fertilizers and organic matter on plants.
10. How are soil and plants interdependent?

11. How have soil conditions contributed to concentrations of population in particular parts of (i) China (ii) India (iii) Southern Ontario?

Nature's Great Gift—Water

1. How does water help us?
How does water provide enjoyment, power, transportation? Keep us clean, and dispose of waste? Affect the food supply of humans, plants, animals? Affect our weight? Affect our comfort? How does ice help us?
2. How much water is there on the earth?
 - (a) From a globe, have pupils estimate the proportion of the earth's surface covered with water.
 - (b) Using cross-sections of land formation, show the occurrence of water tables, artesian wells.
3. Where is water present?
 - (a) Place a metal cup containing ice-cold water in the classroom and observe the condensation on the outside shiny surface.
 - (b) Squeeze some juice from a fruit or vegetable and, if possible, distil it. Relate the fact observed to the needs of plants.
 - (c) Repeat 3(b) with some fresh meat. Discuss the shrinkage of meat when fried. Relate the fact observed to the needs of animals.
 - (d) Make a chart showing the water-content of several foods.
4. Is water always a liquid?
 - (a) Discuss the freezing of water, the melting of ice and snow, the evaporation of water, to show the very common changes of state in nature, i.e., liquid to solid, solid to liquid, liquid to gas. Briefly discuss the characteristics of each state.
 - (b) Experiment to show the change of state when water boils and when steam cools. Explain distillation.
 - (c) Explain the formation of rain and dew.
 - (d) What happens to all the rain that falls? Using an aquarium or a vivarium with a glass cover, illustrate the water cycle. (Water vapour condenses on the lower side of the glass.)
Guide pupils to reach the conclusion that condensing water and melting snow keep rivers and lakes supplied with water.

5. How does water make things disappear?
- (a) Experiment to show the relative solubility in hot and cold water of such solid substances as sugar, salt, soda, fertilizer, and chalk.
Refer to minerals and fertilizers in soil.
Relate this to the availability of plant food in soil.
 - (b) Experiment to show that an undissolved solid may be separated from dissolved materials. Filter a mixture of soil and water.
Relate this to soil erosion and the depositing of sediment in lakes.
 - (c) Experiment to show that the filtrate from muddy water contains dissolved minerals. Refer to absorption of minerals by roots and to soil depletion. Why is the water in the ocean salty? Why does distillation purify water?
 - (d) To show that air (a gas) is dissolved in water, let some fresh water stand in a glass until bubbles collect on sides of glass.
 - (e) When is water called “flat”? Why does boiling make water “flat”? How may this “flatness” be corrected?
 - (f) In nature, why is it important that water should contain air?
6. Why is water “hard”? “soft”? With a medicine dropper, add some soap solution to a measured volume of tap water, one drop at a time, until the foam remains on the surface after shaking vigorously. Repeat test with equal volumes of rain water, distilled water, salt water, and water from neighborhood wells. A soap solution may be made by dissolving about one-tenth of a bar of soap in a half-pint of water.

Conservation of Soil and Water

Conservation means the wise use of our resources to ensure that they will always be available for our use and that of future generations. Conservation measures are now necessary because the balance of nature has been disturbed by man. We must attempt to restore that balance as well as possible under the limitations imposed by modern civilization.

1. What are the major natural resources of Canada?
2. What is meant by (i) “cooperation with nature” and (ii) exploitation of natural resources?
3. Why is there an urgent need to conserve water?
Locate farms or communities in your district in which the water supply is deficient. Why?

4. How is water stored in nature?
 - (a) Recall your experiments under the study of soil to illustrate the effect of organic matter on water-holding capacity.
 - (b) Investigate the ways in which the following assist in this storage: farm ponds, dams, forests and other vegetation, beavers.
5. Why are floods and water shortages more prevalent than in pioneer days without any noticeable change in the amount of precipitation? Secure information from older residents.
6. What types of damage are caused by floods and by water running off the land unchecked? Prepare a small bank of soil with a thirty degree slope in a large shallow box or outdoors. Cover half with sod. Water with a sprinkling can from a height of several feet to simulate rain. Note erosion, appearance of run-off, and retention of water by the sod.
7. Why is the topsoil considered a very important natural resource?
8. What two great forces cause soil erosion?
9. How can the conditions resulting in loss of topsoil and water be prevented?
 - (a) Ascertain where trees should be planted or retained. Why?
 - (b) Briefly discuss good cultural practices which the farmer should adopt.
 - (c) Investigate ways of preventing gullies from forming and enlarging.
 - (d) Find reasons why many swamps should not be drained.
 - (e) Investigate the flood-control measures being planned and carried out in your part of the province.
10. How may a tree-planting programme be carried out?
 - (a) Ascertain (i) where trees for rural planting may be secured (ii) the best time for planting (iii) the methods of planting on different types of terrain (iv) the care before and after planting.
 - (b) Arrange for a school reforestation plot where possible.
11. Why is the farm woodlot vitally important in our conservation programme?
 - (a) Show the values of the farm woodlot in preventing the loss of topsoil and water.

- (b) Investigate the ways in which the farmer may keep the farm woodlot of maximum value.

The Air Around Us

1. In what ways is air essential to all life?
2. Does air occupy space?
 - (a) Plunge a water glass, mouth down, into a pail of water.
 - (b) Have pupils suggest and perform other experiments and find the applications in life.
3. Is an empty bottle really empty?
 - (a) Place a funnel with a small opening in the neck of a bottle. Seal around the outside. Pour water into the funnel.
 - (b) Perform pupil-suggested experiments.
4. Does air have weight?

Suspend a yard stick by a string around the centre. To one end tie an inflated balloon or bladder. Balance the stick. Let the air out of the balloon and note the result.
5. Does air exert pressure?
 - (a) Place a sheet of paper over a full glass of water and invert it. Note that this experiment helps to show pressure is exerted in all directions.
 - (b) Observe what happens when air is released from an inflated balloon.
 - (c) Place finger over the tube of bicycle pump and press handle down.
6. How can we prove that there is moisture in the air?
 - (a) Evaporate a small quantity of water. Where does it go?
 - (b) Breathe on a cold window pane and observe condensation.
 - (c) Discuss the drying of clothes, noting usual variation in time required (i) on a windy day (ii) on a warm day (iii) in dry weather.
7. How does burning change the air?
 - (a) Burn a candle in a closed sealer. When the candle goes out, invert the sealer and immerse it in water. Unseal under water. Observe result.
 - (b) Float a candle on a pan of water. Light it and invert a glass over it making contact with the water. In each of (a) and (b) above note the proportion of (i) air used (ii) air remaining.
 - (c) Have the pupils find the names of the three common gases present in the air in addition to water vapour.
 - (d) Test with lime water the part left after burning.

- (e) Test fresh air with lime water.
- (f) Discover why the fire burns better when the draught is open.
- (g) Find out why campers cover their fire with sand when leaving.
- (h) Why should a person whose clothes are on fire be wrapped in a blanket?

Health

1. How does breathing change the air?
 - (a) Perform an experiment to show the effect on lime water of the air we breathe out. Compare with the results of a similar test with burning in unit on "Air".
 - (b) Recall what happened when we breathed on the cold window pane.
2. What is the effect of stale air upon us?
3. How is the air in the home and in the classroom kept fresh?
4. What are some of the sources of impurities in the air in your community?
5. How do we know that there are impurities in the air?
 - (a) Carefully rub vaseline on three or four pieces of glass and place in various locations inside and outside of your school and home. Examine them carefully after two or three days.
 - (b) Make reference to the effects of coal gas or of carbon monoxide.
6. What is the effect of the water vapour in the air?
 - (a) Inhale through a pad of absorbent cotton for ten minutes and note the effect on the throat.
 - (b) Discuss the effect of humidity on human comfort.
 - (c) Investigate the ways in which the humidity of the air in your school and homes may be controlled.
7. How does temperature affect your health and efficiency?
 - (a) Ascertain from reference books the proper room temperature for good health and good work.
8. How does air-conditioning improve the air we breathe?
 - (a) Investigate air-conditioning systems and show how they produce clean, fresh air of correct temperature and humidity.

1. "The farmer is dependent upon the urban worker and the urban worker is dependent upon the farmer." Discuss.
2. What are the major farm crops grown in your township or county? What factors influence the kind of crops grown?
3. What breeds of livestock and poultry are raised in your community? Why are these particular breeds raised? Visit your local fall or winter fair and note the various breeds of livestock shown.
4. Construct a hot bed or cold frame at the school. Encourage pupils to start one at home.
5. A small school garden may include one or all of the following:
 - (a) Areas for the propagation by seed and cuttings of flowers, shrubs, and small fruits.
 - (b) Experiments to show the value of commercial fertilizers. Broadcast a complete fertilizer such as 2-12-6 or 4-12-6 at the rate of one to two lbs. per 100 square feet on half of the garden area.
 - (c) Tree nursery — trees suitable for school or home planting.
 - (d) Flowers — annuals and perennials.
 - (e) Vegetable garden.Study the soil type, preparation of the seed bed, methods of seeding.

Note: The topic on School and Home Beautification may be used as a topic in Agriculture.

School and Home Beautification

1. How can we make our schools and homes more attractive?
 - (a) Observe and describe the methods which have been used to improve neighbouring homes or schools.
 - (b) Discuss various plans and decide on one which suits your school or home.
 - (c) Estimate the labour and cost needed to put it into effect.
2. How may we improve the lawn and the fence?
 - (a) Consider (i) levelling (ii) fertilizing (iii) seeding or sodding (iv) cutting and (v) weeding the lawn.
 - (b) Consider removing or repairing and painting the fence.
3. What factors determine the selection of trees, shrubs, flowers, and grasses?
 - (a) Consider the soil, water supply, weather conditions as they may affect the plants.

- (b) Examine seed catalogues, current literature and magazines for suggestions.
 - (c) Make a survey of trees, shrubs, and flowers which thrive in your community.
 - (d) Discover what suitable materials may be obtained (i) locally (ii) from nurseries. Consider the location, decorative purpose, size, hardiness, availability, cost, and chances of survival of plants selected.
4. How shall we plant and care for these?
- (a) Secure information from catalogues, magazines, reference books, and growers.
 - (b) In the case of shrubs or trees, consider time of planting, depth, protection of roots before planting, firming, watering, pruning, supporting.
 - (c) Secure help where available from the community.
5. How may we henceforth assist in keeping our school clean and attractive?
- (a) What provision can be made for summer care in (i) weeding (ii) cutting the lawn?
 - (b) What winter protection should plants receive?

Rocks and Minerals Are Important to Us

1. What are some kinds of rocks found in the earth's crust?
2. How has man used rocks in construction work?
3. Make a classroom collection of rocks.
4. Under the headings, formation, appearance, and location (Ontario), describe (i) heat-formed or igneous rocks (ii) water-formed or sedimentary. Make reference to the formation of clinkers in the furnace to explain how igneous rocks are formed.
5. Under the headings, appearance and use, discuss (i) limestone (ii) sandstone (iii) gypsum.
6. What is the geological story of your community?
7. (a) What are some economically important mineral treasures located in the solid earth?
(b) What property of each makes them useful to us?
8. (a) Visit a mine, quarry, or brick yard in your locality.
(b) Describe the making of some rock or clay product such as Portland cement, lime, brick, or pottery, if there is a plant or a yard in your vicinity.

9. (a) Describe the processes by which a mineral in your community is mined or recovered.
(b) If further refining or processing is required, discover where this is done and why.
(c) Trace its journey from its source to the consumer.
10. Discuss the economic importance of Ontario mines
(i) as a means of employment (ii) the use of minerals in industry (iii) as a source of wealth.

A Safe Water Supply

1. What are the sources of our water for drinking and washing?
(a) Investigate the sources of water in both urban and rural areas.
(b) Compare the sources as to adequate supply, safety, and permanency.
(c) List ways of conserving our water supply.
2. In what ways may our water supply become unsafe?
(a) From books learn ways in which rivers and lakes may become contaminated.
(b) Survey your community for sources of contamination.
(c) What diseases may be caused by contaminated water?
3. How can we make our water fit for drinking?
(a) Pour some muddy water into two tall jars or bottles. Add dissolved alum to one and compare the rate of clarification.
(b) Filter some muddy water through some well washed sand. (An ordinary lamp chimney with a cloth tied over one of the openings and filled with sand makes a good filter.) Why are spring water and well water usually quite clear?
(c) To discover the importance of aeration, observe air bubbles which form inside a glass of water which has been allowed to stand. Compare its taste with water fresh from the tap.
(d) Discuss the importance of chlorination.
(e) Visit the local water plant.
5. What is the usual source of water in rural areas and at summer cottages?
(a) Survey well for sources of contamination.
(b) Study the advantages and disadvantages of different types of wells.
(c) What danger is there in using water from a shallow well.
(d) What precautions are advisable before using a rural water supply?
(e) Send a sample to the Department of Health for testing.

Conservation of Forests

1. Why are forests important to us?
 - (a) Make a chart of forest products.
 - (b) Discuss the importance of forests as sources of wages and taxes.
 - (c) Review the role of forests and swamps as natural reservoirs of water.
 - (d) Discuss the forest as a home for wild life and as a playground for tourists.
2. Where are the forest areas of Ontario and Canada?
 - (a) On a map mark the communities in this province mainly supported by forests.
 - (b) On an outline map mark the provincial and national parks.
 - (c) Consult authoritative references to discover the areas which have been deforested.
3. How are our forests endangered?
 - (a) Report on wasteful cutting methods in lumbering.
 - (b) Discuss wind damage to trees left unprotected.
 - (c) Find out the reasons for certain native trees becoming scarce.
 - (d) Consult references to find the annual loss in dollars caused by forest fires, diseases, and insects.
4. How are forest fires prevented?
 - (a) Consider the ways in which people travelling through our forests can help to prevent fires.
 - (b) Discuss measures taken by governments to prevent forest fires.
5. How are forest fires controlled?
 - (a) See "Timagami Ranger" and other available films.
 - (b) Make a report on methods and equipment being used to detect and fight forest fires.
6. How are our forests to be maintained?
 - (a) Discuss "selective cutting" versus "clear cutting". (The former generally means removing every saleable tree; the

latter means cutting about twenty-five per cent of the saleable trees followed by a similar cutting every five or six years.)

- (b) Locate the reforestation stations of the Department of Lands and Forests, and secure information concerning the work done there.
- (c) Survey your district and consult topographic maps to determine areas which should be reforested.
- (d) Visit or take part in a school or community reforestation project.

ART

Aims

1. To raise the standard of aesthetic taste.
2. To assist the pupil to develop his capacities to meet his needs.
3. To assist the pupil to become a useful and cooperative member of his social group.

Nature of the Art Programme

Art includes the use of the emotions and the intellect. In producing art forms the pupil is required to present his emotional and intellectual reactions to experiences in his life. Art is, therefore, a personal expression and depends upon the pupil himself. Since art is the expression of the pupil's reaction to life, it leaves no room for copying nor for the undue intrusion of adult thought. It must be remembered that the end product of this art programme is not the production of art objects, but rather the development of the properly educated pupil both as an individual and as a member of his social group.

Design

Design is not a separate division of the art programme. Pupils develop a feeling for design through practice, and not by the memorization of rules nor the execution of prolonged exercises. However, pupils should have controlled experience with elements of design, including: line, mass, space, light, shade, colour, texture. The control of this experience is one of the functions of the teacher of Art.

The study of these elements will be derived from the activities currently engaging the pupils. They will learn concepts of unity, variety, centre of interest, balance, rhythm, volume, shape related to function, and the suitability of materials. Non-objective art is important in focussing attention upon design.

History of Art and Picture Observation

A formal isolated study of the history of art and of famous masterpieces is not required in these grades. Outstanding examples of work by professional artists both traditional and contemporary must not be ignored, however. Excellent material may easily be obtained from the National Gallery, Ottawa, The Toronto Art Gallery, and from many current magazines, including "Canadian Art".

Professional work should be observed in conjunction with the art activities engaging the pupil at the moment. For example, should the pupil be dealing with social themes, his attention might be drawn to an artist such as Daumier. Should he be dealing with line, he might observe some of the drawings of draughtsmen such as Picasso. Should he be confronted with problems of pattern, he might be directed to the works of such painters as Tom Thomson or Emily Carr.

It must be kept in mind that pictures collected and observed will never be used for purposes of copying, but that they will act as a constant inspiration for creative endeavour.

Evaluation for Pupils' Reports

Evaluation of progress should be based upon the ideas and emotions expressed by the pupil rather than upon neatness and technical quality.

The pupil who appears to be doing his best according to his level of maturity in the various aspects of his art programme should be considered satisfactory.

Formal examinations in art are not recommended, but a simple system of grading may be employed. Experimental work designed to develop a system of grading is being carried on at the present time.

Organization of the Art Programme

The Intermediate Art Programme is divided into two sections:

(1) Picture-Making

(2) Optional Activities

Picture-making will be taught each year and should be allotted approximately one-half of the prescribed time for art during the academic year.

Optional activities are sixteen in number. From these, three or four activities should be selected each school year. Care should be taken to vary the optional activities from year to year.

1. Picture-Making Programme

- (a) *Recording Life Around Us*
Community, home, school, and play.
- (b) *Still-Life* (to receive more emphasis in higher grades)
Children must be permitted to make their own arrangements of objects and then use their imagination to alter the arrangements on paper in order to create a more significant composition. However, some children with scientific minds will insist upon drawing with exactness, and this they should be permitted to do. If nature specimens are utilized in still-life studies, the same freedom of expression should be allowed.
- (c) *Life Drawing* (all grades)
 - (i) Life drawing should be related to other art activities.
 - (ii) Life drawing should be taught so that the pupil may gain self-confidence in his general picture-making.
 - (iii) The pupil should have freedom to re-arrange the drawing of posed figures to produce more significant design.
 - (iv) Both deliberate drawing from posed models and quick sketches of moving models should be made.
- (d) *Non-objective*
 - (i) The nature of non-objective painting should be thoroughly discussed.
 - (ii) The work of professional non-objective painters should be studied.
 - (iii) Non-objective painting should be included in the programme for those pupils who show special aptitude for it.

Materials for Picture-Making

- (a) Media
 - tempera paint
 - charcoal
 - chalk
 - india ink
 - oil paint (expensive but effective)
- (b) Brushes
 - hog bristle (few)
 - sable (many), #6
- (c) Papers
 - off-white papers preferred with most media
 - in most cases minimum size 12" x 18"

Types of paper	bogus
	sugar
	construction
	cream manilla
	wrapping
	newsprint
	craft
	cartridge

Special Techniques in Picture-Making

- (a) Montage using textured materials
- (b) Mixed media, for example:
 - (i) wax crayon with india ink and thinned tempera paint
 - (ii) montage and drawing media

2. Optional Activities

(i) *Linoleum Cutting*

The making of pictures, greeting cards, book plates, tickets, menu covers.

The use of linoleum cuts for textile printing.
Single or multiple blocks.

(ii) *Weaving*

Weaving of scarves, belts, drapes, rugs and other textiles.
A study should be made of good hand weaving and manufactured textiles.

(iii) *Whittling and Carving*

Carving of non-objective forms, abstract carving in low relief, and natural forms with due regard for the medium.

Some study should be made of Canadian woodcarving, including that of the West Coast Indians and of the French Canadians.

Local woods should be used if suitable, such as cedar fence rails.

(iv) *Marionette and Puppet-Making*

Production of plays and stage settings with themes based upon original scripts or upon especially selected themes.

Production of plays will include the making of puppets or marionettes, costume designing, the building of the stage, arrangement of lighting, decor, stage management, manipulation of characters, and selection of suitable background music.

(v) *Paper Sculpture*

Manipulation of paper into non-objective and abstract forms in two or three dimensions.

Making of masks, heads, figures, and settings.

(vi) *Leather Craft*

Making of book marks, key cases, bill folds, purses.

(vii) *Studying Design in Daily Life*

A careful study of items of design in daily living, including: automobiles, aeroplanes, furniture and its arrangement, clothing, electrical fixtures, kitchen utensils, pottery and china, show windows, public buildings, advertising, magazines, books, contemporary home architecture.

Some attempt should be made by the pupils to design some practical objects with a view to their function and the material employed.

(viii) *Silk Screen Printing*

The printing of drapes, tablecloths, textiles for dresses, skirts, and blouses.

Using one or more colours.

(ix) *Poster Making*

Making of posters when the need arises.

Study of lettering styles and lay-out.

The use of cut paper in poster-making and special techniques, including lettering with lettering pens, felt brushes, spatter work or air brush.

(x) *Stage Craft*

Designing of settings, costumes.

Study of lighting and make-up.

Production of a play.

(xi) *Model Building*

Making model houses, churches, schools, and other buildings which may be later grouped to form model communities.

Designing of room interiors and stage settings.

A study of good architectural forms.

(xii) *Stencilling on Paper and Textiles*

Making of book covers, tablecloths, textiles for dresses, skirts and blouses.

Some patterns may be improved by free brush work after stencilling.

(xiii) *Book Craft*

Making of booklets, pamphlets, albums.

Designing covers, re-binding old books.

(xiv) *Work in Ceramics*

The modelling of free forms, bowls, dishes, forms based upon living figures.

Firing and glazing.

A study should be made of good ceramic work.

(xv) *Advanced Drawing*

Drawing from the living model, still-life, and landscape.

Media will include conté crayon, charcoal, pencil, fountain pen and ink, chalks, india ink, and mixed media.

The work done is to meet the need of those who require additional skill in drawing. The photographic representation of objects is not necessarily required.

(xvi) *Metal Work*

Making of low relief plaques from thin metal, costume jewellery, bowls, trays and bookends.

General Equipment

1. Drawing boards — 18" x 24", poplar or cedar plywood, $\frac{1}{2}$ ", $\frac{5}{8}$ ", or $\frac{3}{4}$ " thick, or 1" solid pine or basswood.
2. T-squares — about a dozen for lettering and poster work.
3. Adequate storage space.
4. Display boards for classrooms and halls made from building board, plywood, or cork.
5. Water supply. Where running water is provided a sink is desirable.
6. Table space. Flat top tables large enough to seat six pupils, or individual art tables with adjustable tops are desirable.

Where art classes are conducted in standard classrooms with fixed desks, working surfaces for large sheets of paper may be obtained by the use of:

- (a) tables placed at the back of the room,
- (b) bulletin boards,
- (c) blackboards by taping paper directly to the surface,
- (d) tables hinged to walls below blackboards.

7. Work-bench with vise and carpenter's tools.

8. Muffin tins for mixing tempera paint — 6 or 8 compartments to a tin.

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MUSIC

Aims

1. To help pupils acquire a wide interest in music.
2. To help pupils acquire a higher standard of appreciation of music.
3. To help the pupils improve their skill in performance.
4. To discover and encourage musical talent.

Purpose of the Revision

The outlines of the courses are intended to accomplish the following purposes:

1. To provide a minimum course suitable for all pupils;
2. To give time and opportunity for teachers to develop a course suited to the capacities and special interests of their pupils;
3. To give teachers wide opportunities for choice in activities, music to be studied, and depth of treatment;
4. To stress learning how to play musical instruments in Grades IX and X, and to stress the more advanced study of music in Grades XI, XII and XIII.

Outline of the Courses

I. Class Listening

Grade VII and Grade VIII	The recommended course is outlined in the circular, <i>Music Appreciation for Schools, Grades I to VIII</i> , to be issued by the Department in the near future. The RCA-Victor School Music Albums contain suitable recordings and teaching suggestions.
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Grade IX and Grade X	It is recommended that the present courses be followed, but that some material in each be taken in the succeeding grade.
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II. Vocal Music or Instrumental Music

Vocal Music

1. Class singing of

- (a) unison songs for enjoyment, the study of song literature, seasons and special occasions, correlation with other subjects;
- (b) part songs to develop harmony singing within the range of the pupils' voices.

(No change in the present singing programme for Grade VII is recommended.)

Song books recommended for Grade VII:

High Road of Song, Books 1 and 2 (Gage)
Singing Period, Book 5 (Waterloo)
Silver Book of Songs (Thompson)
Canadian Singer, Book 6 (Gage)
School and Community Song Book (Gage)
New Music Horizons, Book 6 (Gage)
Song Books for Ontario Schools (Clarke, Irwin)
Canadian Song Book (Dent)
Sing Care Away (Novello)
Hymns for Schools (Thompson)
Songs of the Commonwealth (Thompson)
Carols of Christmas (Thompson)
Christmas Carols, arranged Hill (Waterloo)

2. Class Sight Reading

Grade VII Six part measure, dotted beat note, minor scales, simple modulation.

Texts: *High Road to Sight Singing*,
Book 2, pages 31-59.

High Road Teacher's Manual

(No change in the present course is recommended)

Grade VIII Review of elementary sight singing, including bass staff.

Text: *The Chorister*, Book I, Chapters
1 - 6.

Grade IX Half note and eighth note beat values, eighth note and rest, dotted quarter note.

Text: *The Chorister*, Book I, Chapters
7 - 10.

Grade X Sharps, flats, naturals, modulation to dominant and sub-dominant.

Text: *The Chorister*, Book I, Chapters 11 - 14.

(In schools where only one course can be offered in Grades IX and X, part of the Grade X course in Sight Reading may be taken in Grade IX, and any essential material omitted may be taken in Grade XI.)

Instrumental Music

An experimental course in Instrumental Music for Grades VII to X is being tried out in a number of selected schools. A copy of the course may be obtained from the Assistant Director of Music, Department of Education.

HOME ECONOMICS

The following general information refers to all grades in the Intermediate Division.

Nature of the Programme

“One of the basic principles of democracy is the assumption that the family is the most significant of all social institutions”. Home Economics is that phase of education which is especially designed to help the individual live a more useful and satisfying family life. Inseparable from this are the further goals of happy and successful personal and community living.

Home Economics includes all phases of homemaking with emphasis on personal and social development. It aims to provide a variety of experiences and activities based on real-life situations with a view to discovering the basic principles underlying each. With some understanding of these basic principles girls and boys are better able to solve their problems of personal and family living.

It is important to note that the family is not a static institution, but rather one which is undergoing continuous modification. Changing economic conditions, social standards, and political organization all make their impact upon family living, ever forcing it into new and different patterns. It is equally important to recognize the diversity of community and family living at any given point of time. This diversity is true of communities within a relatively small geographic area. It is true of families even within a small community. An educational programme must endeavour to meet the problems which emerge because of these ever-changing and complex conditions.

Fields which can be effectively explored in the Home Economics classroom are: child care and development, clothing and textiles, family and personal economics, food and nutrition, health, home management, housing, and human relations.

The Home Economics programme must be adjusted to the needs of children with differing home and community backgrounds and cannot, therefore, be stereotyped.

Factors Influencing the Home Economics Programme

Among the factors influencing a teacher in planning an effective Home Economics programme the following are important:

1. The pupils — their personal characteristics, needs, and interests, their past experiences, their home and community background.
2. The body of knowledge and experiences which Home Economics has to offer.
3. The relationship of Home Economics to other subjects of the school programme and to the general life of the school.
4. The accommodation and equipment provided for the use of the pupils at school, at home, and in the community.
5. The time allotted to Home Economics.
6. The size of the classes.

From the foregoing it is clear that one of the first responsibilities of the teacher is to become acquainted with the pupils and their family life, with the school organization, and with the community.

A. Knowing the Pupils and Their Families

Cooperation between teachers, pupils, and parents is worthwhile in all child education and would seem to be essential in planning a homemaking course. If the teacher is to meet the needs of the pupils as individuals and as members of a family, she should secure as much information as possible relative to their:

Chronological, mental, and social maturity levels

Academic achievement

Previous participation in Home Economics activities at home or school

Present Home Economics achievement level

Health record

Future plans

Hobbies and social interests

Responsibilities within and outside the home

Family background

Community background

Economic, religious, and cultural backgrounds

Helpful information may be obtained through pupil questionnaires, school records, pre-tests, discussion and observation, visiting the homes, inviting the parents to the school, the Home and School Association, and other sources.

B. Knowing the School

The teacher, particularly one who is new in the school, must discover as much as possible about the life of the school. She will wish to have information concerning:

The aims of education in the school

The total number of pupils and the number in each grade

Organization

The school building

The extra-curricular programme

Content of other courses

School services

This information may be obtained through talks with the principal, the staff members, and those in charge of special services, through reading school calendars and courses of study, and through observation.

C. Knowing the Community

No two communities are alike in their social, economic, and political structures. To institute the most appropriate type of Home Economics programme, the teacher should be interested in her school community, giving attention to:

Density of population

Diversity of population

Housing

Income Levels

Nature of its industrial life

Cultural interests

Church programmes
Social agencies
Recreational opportunities

Building the Programme — A Cooperative Approach

To make the programme purposeful and stimulating to the pupils and to relate it directly to their daily living, it is desirable that the pupils share with the teacher in planning, carrying out, and evaluating the learning experiences. The role of the teacher is one of motivation and guidance. At first the pupils' share of responsibility will be limited, but as the pupils grow in experience, and as the teacher and pupils become better acquainted, the pupils will gradually assume a greater share of responsibility.

1. Advance Planning by the Teacher

Having studied the factors influencing the programme, the teacher will set up for herself objectives for the year and tentative units of work which will help accomplish them. She will devise methods for carrying out day-by-day activities which will inspire and maintain interest.

2. Pupils and Teacher Plan and Work Together

At the beginning of the year and at the beginning of each new unit, the teacher will discuss tentative goals with the students, using illustrative material, references, and other teaching aids. This will help the pupils establish their own goals and make plans for achieving them. Pupil activity, guided and assisted by the teacher, will follow.

3. Pupil-Teacher Evaluation

Frequent evaluation of progress is an essential part of teaching. When pupils share in this it helps them to measure their achievement and to plan for further experiences.

Classroom Organization

This will vary with the grade level, the goals desired, the facilities available, the school organization, the time allotted, and the size of the classes.

In fully-equipped Home Economics rooms the experience which pupils gain by working individually or in groups will help prepare them for the problems they face in daily living. It is important that each member of the class participate in all phases of the work and that a good balance be maintained among the different aspects of homemaking.

The Home Economics rooms of today are designed and furnished to reproduce as nearly as possible an authentic home atmosphere. Provision is made for pupil participation and efficient teacher supervision in the following areas: living room, dining room, kitchen, laundry, bedroom, and sewing centre. These may be included in one all-purpose room or a combination of specialized rooms. The furnishings and equipment should be adapted to the home life of the community and at the same time establish standards of good taste.

Homemaking Experiences Outside the Classroom

Homemaking experiences may take place in the school, at home, or in the community, as well as in the Home Economics classroom. When selected with care, they are a very effective means of creating family and community interest in Home Economics programmes; at the same time they contribute to the pupils' understanding of citizenship. To achieve these objectives, the homemaking experiences should be within the ability of the pupils and related to their classroom work.

1. Within the School

Because of its specialized programme, equipment, and accommodation, the Home Economics department should have a unique place in the life of the school. Correlation of Home Economics with such other subjects as Art, Physical Education, Science, or Social Studies is essential in the planning of an integrated programme for the general education of the pupils.

Cooperation in special school activities is equally desirable. Such cooperation might take the form of offering simple and gracious hospitality to guests of the school and to staff members; making simple clothing for the Junior Red Cross or other welfare activity of the school; assisting in making the school tidy and attractive. The teacher and pupils may find opportunity for service to other teachers in planning and carrying out nutrition

programmes and other activities correlated with home and family living in their home classrooms. These will vary from school to school and from class to class.

2. At Home

To secure a "carry-over" to the home it is desirable that every pupil undertake one or more projects at home. These should be interesting to the pupils, adapted to their abilities, related to their school work and, above all, make a contribution to the home life of the girl and her family. Projects selected in Grades VII and VIII will be simple and of short duration; in Grades IX and X they will increase in difficulty.

3. In the Community

From time to time the homemaking pupils may have opportunity to take part in special community activities outside the school. Such participation will be mutually beneficial. For example, a community nutrition campaign may provide the motivation for further study and practice of good nutrition in the homemaking classes; at the same time the interest of the pupils strengthens the community programme. This is education in practical citizenship.

Home Economics in the Ordinary Classroom

Where it is not possible, as is the case in small rural schools, to have a fully-equipped homemaking room and a specialized Home Economics teacher, the classroom teacher may achieve some of the objectives of Home Economics education if the whole school programme is viewed as the area in which pupils may work. Is the classroom as homelike and attractive as it can be? What knowledge of nutrition, good table manners, or personal cleanliness may be taught in connection with the school lunch or in correlation with other subjects? What home crafts may be introduced with little specialized equipment? What experience in caring for and understanding small children may be gained through observing and helping children in junior grades? From a course of study like the one suggested here for Grades VII and VIII, the teacher can select those topics which best meet the needs of the pupils and which may be carried on within her particular school or room. Both girls and boys should participate.

If a limited amount of equipment is provided, this programme may be expanded. For experience in food preparation, the minimum large equipment required includes: sink and water supply, work space, stove, storage space, and a small table which may be used as a dining table. For machine sewing, a sewing machine and adequate work surfaces are essential.

Home Economics for Boys

Concern for the democratic way of life suggests that all members of the family participate intelligently in making the home a happy and satisfying place in which to live. It follows, therefore, that boys as well as girls require guidance to help them grow in their ability to make wholesome personal and social adjustment as members of a family group.

From the viewpoint of the individual, the home and society, the study of Home Economics has much to offer to boys. Their interests will differ in many respects from those of girls, but a suitable programme will help them to understand the responsibilities of other family members and to see their own share in the life of the home more clearly. Boys will be interested in and benefit from such experiences as the selection, preparation, and serving of simple food; the selection and care of clothing; personal finances and personal relationships with other people.

The amount of time allotted to Home Economics for boys will be less than that for girls. It may be planned as a special unit to enrich the regular school programme or as an exchange of classes between Industrial Arts and Home Economics for units of a few weeks. Such short courses have been tried out successfully in several schools in Ontario.

Evaluating the Programme

From time to time the Home Economics teacher should appraise the effectiveness of what is being done. In doing this the following questions may well be considered:

1. Does the programme provide experiences which take into consideration the characteristics, interests, and needs of adolescents?
2. Are the experiences so real and life-like that the pupils are stimulated to use creatively their new knowledge and skills in their personal, family, and social living?

3. Is the programme sufficiently flexible to provide for individual differences in pupils?
4. Does it develop initiative, resourcefulness, and cooperation?
5. Does it promote happiness and enthusiasm?
6. Have the pupils had their share in planning the programme and in evaluating their learning?
7. Is the programme an integral part of the school life?
8. Is it adapted to meet the needs of the community which the school serves?
9. Does the programme reflect the philosophy of a democratic society?
10. Does the classroom environment inspire the pupils to create, now and at some future time, a functional and attractive environment in the Home?

References for the Teacher

Hatcher and Andrews: *The Teaching of Homemaking*. Nelson.
Stevenson: *Home and Family Life Education in Elementary Schools*. Associated Publishers.

Grades Seven and Eight

The outline which follows is to be used only as a guide to teachers in planning a detailed course of study for local schools. Suitable units of work and experiences will be developed by each teacher in cooperation with the pupils. Flexibility is essential because of individual differences among girls and classes.

Since this is the girls' introduction to Home Economics as a subject, it is important that the programme stimulate interest. The girls in these grades have a strong family tie but are developing an increasing feeling of independence. Hence they are interested in experiences which are related to their own personal development and which also help them to get along better with their friends and family. Projects selected should not be too long in duration.

The courses for Grades VII and VIII should be planned as a two-year sequence and serve as the foundation for further study in Grades IX to XII.

Grade VII

The Family

The Girl's Role in the Family

- (a) Respecting the rights of others
- (b) Sharing work and play
- (c) Being mannerly
- (d) Caring for younger brothers and sisters
- (e) Caring for personal belongings
- (f) Helping entertain
- (g) Using leisure time

The Home

- (1) Making the Home and School Attractive
 - (a) Needlecrafts — Simple accessories for the home or school
 - (b) Flower arrangements
- (2) Helping to Care for The Home and School
 - (a) Sharing in housekeeping tasks
 - (b) Sharing in keeping the school clean and orderly
 - (c) Caring for one's room

Grade VIII

The Family

- (1) Developing an Understanding of the Family
 - (a) Appreciating the roles of family members
 - (b) Sharing the privileges and responsibilities of family living
 - (c) Respecting the rights of others
- (2) The Girl's Role in the Family
 - (a) Sharing work and play
 - (b) Being mannerly
 - (c) Caring for younger brothers and sisters
 - (d) Caring for personal belongings
 - (e) Helping entertain in the home
 - (f) Use of leisure time
 - (g) Learning how to get along with others
 - (h) Managing money

The Home

- (1) Making the Home and School Attractive
 - (a) Needlecrafts — Simple accessories for the home or school
 - (b) Flower arrangements
 - (c) Furniture arrangement
- (2) Helping to Care for The Home and School
 - (a) Sharing in housekeeping tasks
 - (b) Sharing in keeping the school clean and orderly
 - (c) Caring for one's room

(3) Practising Safety at Home and School

Food

(1) Helping with the Family's Meals

(a) Helping to prepare attractive and simple suppers and breakfasts using Canada's Food Rules

(b) Making meals pleasant —table setting, serving, and good manners at mealtime

(c) Cleaning up after meals

(2) Entertaining

(a) Tea for guests at home and at school

(b) Special occasions — birthdays, holidays

(3) Helping in the school Special occasions

(4) Nutrition for Health
Developing good food habits with special reference to breakfast and the school lunch

(5) Buying Food

(a) Related to meals prepared at school

(b) Shopping for the home

(3) Learning How to Make the Home or School a Safer Place

Food

(1) Helping with the Family's Meals

(a) Learning to plan, prepare, and serve attractive and simple meals using Canada's Food Rules

(b) Making meals pleasant — table setting, serving, good manners at mealtime

(c) Cleaning up after meals

(d) Preparing a tray for breakfast or sickroom

(2) Entertaining

(a) Tea for guests at home and at school

(b) Special occasions — birthdays, holidays

(c) Picnics

(d) Simple refreshments

(3) Helping in the School

(a) Special occasions

(b) Kindergarten — nutrition experiences

(4) Nutrition for Health
Canada's Food Rules and how to apply them

(5) Buying Food

(a) Related to meals prepared at school

(b) Learning to be a good shopper

Clothing

(1) Learning to Sew by Hand and Machine

(a) For personal use — simple cotton garments

(b) For members of the family — gifts

(2) Needlecrafts

Simple articles

(a) Knitting

(b) Simple embroidery

(3) Learning to Look One's Best

(a) Personal cleanliness

(b) Care of clothing

(c) Simple repairs of clothing

Clothing

(1) Learning to Sew by Hand and Machine

(a) For personal use—simple cotton garments

(b) For members of the family — gifts

(c) For others, e.g., Red Cross

(2) Needlecrafts

Accessories for personal use

(a) Knitting

(b) Embroidery

(c) Weaving

(3) Learning to Look One's Best

(a) Good grooming

(b) Keeping clothes attractive

(c) Selecting suitable cloths for a Grade VIII girl

Suggested Classroom Reference Books—Grades VII and VIII

Baxter, Justin and Rust: *Our Food*. Longmans.

Baxter, Justin and Rust: *Our Food*. Longmans.

Baxter, Justin and Rust: *Our Home and Family*. Longmans.

Harris and Kauffman: *Young Folks at Home*. Copp, Clark.

Home Economics Series. Macmillan.

Deming: *Home Nursing*.

Evans: *The Story of Textiles*.

Hawes: *Good Grooming*.

Price: *Living with the Family*.

Stone: *The Meaning of Nutrition*.

O'Donahoe: *Child Care and Development*.

Amidon, Bradbury and Drenckhahn: *Good Food and Nutrition*. Associated Publishers.

Silver: *Junior Foods and Nutrition*. Appleton-Century.

Foods, Nutrition and Home Management Manual. Home Economics Circular #1, Department of Education, British Columbia.

Pattinson: *Canadian Cook Book* (revised). Ryerson.

Gossett and Dauber: *Picture Cook Book*. Book Society of Canada.

Rombauer: *A Cookbook for Girls and Boys*. McClelland and Stewart.

Saunders: *Young America's Cook Book*. New York Herald Tribune.

Faust: *How to Make and Keep Friends*. Nelson.

Allen and Briggs: *Behave Yourself*. Longmans.

Allen and Briggs: *If You Please*. Longmans.

Stephenson and Millett: *How Do You Do*. Moyer.

Stephenson and Millett: *A Test on Manners*. Moyer.

Dressmaking Book. Butterick Pattern Co.

Dressmaking Made Easy. McCall Pattern Corporation.

Vogue's Guide to Practical Dressmaking. Vogue Pattern Co.

Karasz: *See and Sew*. Longmans.

Karasz: *Design and Sew*. Longmans.

Carson: *How You Look and Dress*. McGraw-Hill.

Polkinghorne: *What the World Wears*. Clarke, Irwin.

Johnson and Newkirk: *The Textile Arts*. Macmillan.

Johnson and Newkirk: *Needlecraft*. Macmillan.

Hood and Polson: *A Simplified Guide to Knitting*. Dent.

Knitting for Young America. Institute for Hand Knitting.
132 East 5th Street, New York 16.

Saunders: *America's Housekeeping Book*. New York Herald Tribune.

INDUSTRIAL ARTS

Aims

In planning a detailed course in this subject, teachers should keep in mind the following important aims:

1. Industrial Arts provides opportunities for thinking in terms of concrete material. It presents problems of how different forms of material may be changed to produce the results desired. The solution of these problems calls for analytical thought and creative effort. The coordination required in the correct manipulation of tools, and the pupil's self-direction of his activities in planning and constructing projects are valuable aspects of general education.
2. The programme of Industrial Arts should be planned to cultivate the pupil's aesthetic appreciation, through the application of design to the production of beautiful objects. From this growing appreciation there may be developed avocational interests which will later lead to enjoyable use of leisure time.
3. One of the chief aims of Industrial Arts in the Intermediate Division is that of providing effective guidance. Through the interpretation of working instructions and drawings, the use of tools, and the operation of machines, there should be revealed capacities for learning the skills basic to many occupations. From these experiences the pupil may be able to determine whether he possesses the special aptitudes and interests required for craftsmanship in the trades. The related information provided by the course of study should give him a better understanding and appreciation of the industrial world and enable him to plan his future education more wisely.
4. Industrial Arts should encourage a closer bond between school and home. The pupil should be made aware of new developments in home construction and equipment, and he should by practice acquire the skill necessary for maintaining

the home in good repair. More important still will be the development of a lasting desire to contribute to the maintenance and beautification of the home.

5. Industrial Arts provides excellent opportunities for the development of democratic citizenship. Through group activities the pupil learns to cooperate with his fellow-workers. He should learn how to conserve material resources through wise selection, efficient use, and economical maintenance of the materials which he encounters in his daily life.

Grades Seven and Eight

The programme for Industrial Arts in Grades VII and VIII should include:

- (1) Blue print reading and sketching
- (2) Woodworking
- (3) One of the following
 - Household Mechanics
 - Electricity
 - Leatherwork
 - Keene's Cement Work
 - Bookbinding
 - Lapidary Practice
 - Plastics
 - Metal Working

Note: The time allotted to section (3) is intended to be used as an option both for students and for teachers. This time should be limited to 20% of the total time allotted to the Industrial Arts programme.

Obligatory Activities

1. Blue print Reading and Sketching

It should be noted that formal drafting is not considered a part of the curriculum for Grades VII and VIII. Teachers

should, however, insist on a good standard of neatness and accuracy in freehand sketching and in the interpretation of simple working drawings. Where possible the subject matter of this activity should be related to the practical work forming the remainder of the course.

Grade VII

Sketching

Working drawings

Analysis of simple geometric areas and volumes as to their descriptive dimensions

Measurements—essential measurements and methods of determining same

Representation of simple objects by full-size scale sketches using

(a) squared paper and (b) by freehand method

Titles, lettering and bill of material

Blueprint Reading

Reading of elementary working drawings to understand standard practice in relation to:

Lines—outline, broken, dimension and centre

Views—plan elevation and end view

Hidden surfaces

Radii

Specifications

Grade VIII

Sketching

More advanced objects

Greater degree of accuracy and less dependence on squared paper

Introduction of sections

More emphasis on selection and placement of views, and higher standards of work in lettering and in general appearance of finished sketch

Blueprint Reading

More advanced drawings

Greater facility in interpretation

2. Woodworking

In all shop work where hazards are involved, instructors should conform to proper workshop methods and insist on good safety practices by the students. Instruction should also be given in the proper care of hand tools. Teachers will be responsible for the selection of suitable projects.

Grade VII

During this year pupils should be encouraged to measure and work to an accuracy of $1/16''$.

Operations

Simple sawing and planing

Squaring stock on four sides

Decorating—by bend, chamfer, chip carving, applique; addition of metal, paint, stain, etc.

Finishing—by sanding, painting, staining, shellacking, and waxing (Note: Suggest avoid varnish unless perhaps fast drying varnish.)

Boring—hand tools only

Sharpening—screwdriver and knife

Grade VIII

The teacher should attempt to secure greater accuracy in Grade VIII than that accepted as meeting the Grade VII standard. Every opportunity possible should be utilized for the cultivation of more accurate thinking, expression, and creative effort by the pupils.

Operations

Operations listed in Grade VII

Squaring stock—six sides

End planing

More advanced forms of construction

Joining and gluing—use of hand and bar clamps

Finishing—Grade VII outline plus enamelling and filling
(Varnishing still not desirable)

Interpreting a simple bill of material and an elementary
working drawing

Optional Activities

A. Household Mechanics

Elementary maintenance of household and personal equipment such as:

Locks

Hinges

Faucets

Windows

Electric light cords

Utensils and other metal ware

Garden tools and accessories

Shoes and other personal equipment

B. Electricity

A few experiences to gain some very elementary concepts of common low-voltage electrical household equipment such as:

Proper use and care of dry cells including simple series and parallel circuits for lighting and signal effects

Conductors and insulators, and elementary magnetism

Transformer operated low-voltage signal devices

Protection of circuits and equipment

Meter reading

C. Leatherwork

Operations

Cutting

Thonging

Colouring and dyeing
Stitching
Tooling

D. Keene's Cement Work

Operations

Mixing
Casting
Colouring
Turning (Grade VIII)
Polishing

E. Book Binding

Operations

Folding
Sewing
Binding
Repairing

F. Lapidary Practice

Operations (Grade VIII)

Breaking
Cutting
Lapping
Grinding
Polishing
Mounting

G. Plastics

Operations

Sawing
Filing
Piercing

Decorating

Polishing

Cementing (Grade VIII)

Carving (Grade VIII)

H. Metalworking

Operations (Art Metal Work)

Cutting with snips

Filing

Line etching

Piercing

Polishing and buffing

Forming, bending, twisting

Working to dimensional sketches and drawings

Work on tin plate and strap iron
(advanced students)

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